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METROPOLITAN GROWTH AND DEMOGRAPHIC CHANGES IN CALCUTTA 1951-1981

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ABSTRACT

This paper studies the major demographic trends for Calcutta metropolitan area and the core city for the period 1951-1981. It has been observed that the suburban growth has accelerated and the growth of resident population in the city has almost come to a halt. Second, suburban growth has a southward thrust. Third, suburban growth is concentrated within the 20 km. radius from the centre. Fourth, apart from the natural increase, the suburban population increase is contributed mainly by within-state rural-urban migration, migration from East Bengal (now Bangladesh) and out-migration from Calcutta city. Fifth, the process of gentrification of the inner city has started.

A significant part of the suburban population live in non-municipality areas which are mostly unplanned and lack the minimum urban facilities. While the process of suburban growth cannot be contained, priority should be given to a planned suburban development.

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METROPOLITAN GROWTH AND DEMOGRAPHIC CHANGES IN CALCUTTA?

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I. Introduction

Is Calcutta stagnating? Looking at the growth of inhabitants in the city of Calcutta this might be the conclusion one would reach. The rate of growth of population in the city was 3.5 per cent for the decade 1951-61 and 7.6 per cent and 4.8 per cent respectively for 1961-71 and 1971-81. But, going beyond the city of Calcutta (which is a Census defined urban unit which includes the area of the Calcutta Municipal Corporation and some of adjoining areas like Fort, Canals etc. outside of Corporation's jurisdiction) and taking the metropolitan growth of Calcutta into account, a different conclusion would be reached. Calcutta Urban Agglomeration which comprise the 50 km. stretch of continuous urban development almost linearly along the river Hooghly,¹ on both of its banks, had a more steady growth; the growth rates being 28.1 per cent, 24.0 per cent and 23.9 per cent, respectively, for these three decades. This indicates that the outlying areas experienced a faster growth compared to the core city. In other words Calcutta, like the metropolitan cities in the developed world, has reached a specific stage of metropolitan growth characterised by a certrifugal movement of population from the core city to the suburban areas. Taking the wider territorial definition of Calcutta into account, there is, thus, no stagnation.

It might be asked how and to what extent the agricultural backwardness and industrial stagnation in eastern India, its hinterland, has affected the demographic

growth of Calcutta Urban Agglomeration. When we compare the growth of Calcutta Urban Agglomeration to that of greater Bombay, we find that the later had much higher growth rates during these three decades - 39.9 per cent for 1951-61, 43.8 per cent for 1961-71 and 33.1 per cent for 1971-81.² It may be noted here that, while making the population prediction for the Calcutta metropolis, the Basic Development Plan 1966-86 failed to anticipate the ensuing industrial stagnation in the region, the actual population of the metropolis in 1981 fell short of even the lower bound of the population predictions made in the plan.³

The stagnation of the core city and the dispersal of the population to the suburbs is by no means an unique experience of Calcutta. All over the world the growth of metropolitan cities shows some common features. With the increase in the size of the city, and the consequent expansion and concentration of various activities, for example, business, commerce and services, at the central place, the demand for land in the central part of the city increases. As a result, land price increases and low value land-uses are replaced by high value land-uses. The low rent residential accommodation and industries requiring large space give way to high rent commercial centres, head offices of the banks and business firms, and high rent residential accommodation for the executives and businessmen. Thus, the metropolitan growth process is characterised by a decline or deceleration of growth of resident population in the central city and dispersion of the population to the outlying areas. However, the pressure on the civic services in the central city increases rather than decreases despite such decline of night population, because of a large increase in commuter population from the suburbs to the

central city, for employment and various services. Who will move to the outlying areas depends among other things on the mode of transport and the facilities available in the outlying suburbs. For example, in USA, because of the highway system and the dominance of private motorised transport, the higher income groups are more likely to move to the suburbs.⁴

In the less developed countries metropolitan growth tends to take place under a different set of conditions, especially noteworthy being the relatively minor role played by private motorised transport and the lack of development of civic facilities in the suburbs. Because of these the higher income groups tend stay in the central part of the city or in the developed areas close to it, while the middle and low income people move to the unplanned suburbs which are bereft of civic facilities. This is not to say that lower income groups are totally absent in the central city, the squatter colonies and slums contain the population who provide various services to the higher income groups.

We have already noted elsewhere that, compared to many other metropolitan cities in the world, Calcutta has a relatively recent origin. Apart from the core city, which was established nearly three centuries ago by the British traders, on the east bank of the Hooghly river, some of the other towns in this area also owed their origin to the foreign settlers: Chandernagore (French), Hooghly (Dutch) and Serampore (Denish), all located on the west bank of the river. Water transport being the only economic mode of long-distance transport in those early days, wholesale trading flourished along the river routes centering round Calcutta port. In the second half of the 19th century,

when the jute industry was developed, this too was established close to these trading centres along the river banks. The railway lines laid during this period ran parallel to the river Hooghly which connected the trading centres and the mills to the port. Over time these centres of trade and industry emerged as satellite towns to Calcutta closely linked to the Calcutta market and port.⁵

By 1901 the area on which the present day Calcutta metropolis is located was dotted with 25 towns; of which 16 including Calcutta were on the east bank and the rest on the west bank. Between 1901 and 1951, 12 more towns appeared; six of them, namely Champdani, Rishra, Konnagar, Khardaha (1921), Bauria and Uluberia (1951), were based on jute mills; the first three were formed by separating the jute mill areas from the existing municipalities.⁶ Of the remaining six two were special category towns (Ichhapore Defence Estate and Barrackpore Cantonment), one railway township (Kanchrapara) and three more were Batanagar (based on leather industry), Dum Dum and Halisahar.

Of the 37 towns in 1951 five were cities or class I towns (100000 and above inhabitants), nine were class II towns (50000-99999), 14 were class III towns (20000-49999), eight were class IV towns (10000-19999) and only four were class V towns (5000-9999) (Table 1). These towns were more or less self-contained so far as employment and residence were concerned; suburban commutation was not very significant.

The decade of the 1950s saw a number of changes, many of which followed from the partition of the country in 1947. The immigration of the displaced persons from East Bengal (East Pakistan/Bangladesh) reached its peak

During 1950-51 and continued with varying intensity certainly upto 1971. A large number of them occupied lands and set up unauthorised refugee colonies, while many government sponsored refugee colonies were set up, mostly in the periphery of Calcutta. Thus in the 1950s there was an exogenous growth of suburban population of Calcutta, which resulted in the development of a number of small towns. In 1961 in the Calcutta metropolitan area there were 72 towns. nine class I towns or cities, 11 class II towns, 16 class III towns, 12 class IV towns, 18 class V towns (5000-9999) and six class VI towns (below 5000). The development of new small towns in the outlying areas of Calcutta continued when in the successive decades of 1961-71 and 1971-81, 26 and 23 new towns respectively came up.

Thus, while several of the major towns in CMA had a long and chequered history, the vast majority are overspills of the core city, accentuated by the refugee influx and facilitated by the suburban railway system.

While the existing railway network in this area was largely completed before the beginning of the present century, the electrification of the suburban lines started in 1953 and was completed in all sections of Sealdah and Howrah, excepting Howrah-Kharagpur section only by 1966; in the later electrification was done by the end of 1960s.⁷ The improvement in the rail transport reduced the time-distance of the suburbs and increased the frequency of the services, which encouraged commuting, and provided the middle class with a choice of suburban residential locations at lower rent or cheaper land price.

The projections of the demographic growth in Calcutta Metropolitan District (CMD) in the coming decades also suggest that suburban growth would accelerate in future.

It has been estimated that, at the turn of the century, the population of the CMD would be around 15 millions compared to 10 million in 1981 and about another five million would be added by 2021 A.D. (Table 2). However, the share of Calcutta city (including Garden Reach, Jadavpur and South Suburban municipal areas) in CMD population would decline from 42 per cent in 1981 to 30 per cent in 2021; that of the other existing municipal units would increase from 39 per cent to 48 per cent during the same period. The share of the non-municipal part would also go up from 19 per cent in 1981 to 22 per cent in 2021.

Where within the metropolis the teeming population would settle? Would they live in the core city or in the existing municipal towns or in the non-municipal urban units? What are the factors influencing the distribution of suburban population? What are the other concomitant changes in the demographic profile, particularly in terms of gender ratio, household size and literacy rate? What are the changes that would take place inside the core city? In this chapter we will analyse the process of metropolitan growth in Calcutta with reference to these issues and the fact that the growth of the metropolis took place in a condition of economic stagnation. The paper is organised as follows. In section II we discuss the trends and patterns of suburban growth in recent decades. In section III we analyse the role of migration in metropolitan growth, while the inner city changes are discussed in section IV. In the concluding section (V) we sum up the findings with their policy implications.

II. Trends and patterns of metropolitan growth in Calcutta : 1951-1981

In 1981 the Calcutta Metropolitan Area (Calcutta Metropolitan District) had a total area of 1488.38 sq. km.

of which 966.92 sq. km. (61 per cent) was urban and 581.46 sq. km. (39 per cent) was rural (Table 3).

The rural areas within CMD are growing rapidly, and many of the rural areas have already been transformed into urban areas. In 1981, the rate of growth of population in rural-CMD was relatively faster. Whereas, in 1961 of the 6.4 million population of the CMD 93.4 per cent were in the urban area, by 1981 the share of the urban areas was reduced to 92.3 per cent. However, the rural density is only one-eighth of the average urban density, while gender ratio is higher - 903 in the rural areas compared to 783 in the urban areas, indicating the dominance of family households.

Coming to the urban areas of CMD, we are here concentrating on Calcutta Urban Agglomeration (CUA) - population⁸ which contained more than 98 per cent of the CMD urban population in 1981.

Table 3 shows the population of Calcutta city and of the Calcutta Urban Agglomeration between 1901 and 1981. While the share of Calcutta city in the total urban population of the area was 62 per cent in 1901, it was 53 per cent in 1951; but, thereafter, the share dropped sharply to 49 per cent in 1961 and 36 per cent in 1981. To take the distribution of the incremental CMA-urban population between the city and the other urban areas we find that the share of Calcutta city dropped sharply after 1941-51. In 1941-51 the share of the city in the incremental population was 51 per cent but it declined to 17 per cent in 1951-61 and only nine percent in 1971-81 (Table 4). This establishes that the process of suburbanisation beyond the present city boundary made a significant impact only after 1951.

To study the spatial patterns of suburban growth we are dividing the CUA into several zones (see maps below): Calcutta city and Howrah city (including Bally Municipality⁹) are considered as two separate zones because of their centrality and importance in terms of the size of the population. The north-east zone consists of all cities and towns on the east bank of the river to the north and north-east of Calcutta city and Bidhannagar township. The south-east zone consists of Bidhannagar town and other east bank cities and towns to the south of it. The north-west zone consists of cities and towns on the west bank to the north of Bally municipality. The south-west zone includes the west bank towns to the south of Bally municipality and Howrah city.

The Basic Development plan for Calcutta for 1966-86 suggested a two-centre development of Calcutta Metropolitan Area; one of them was the Metropolitan Centre consisting of cities and towns roughly within 20 km. distance from Calcutta city.¹⁰ Accordingly, each of the above zones, except Calcutta city and Howrah, was subdivided into the sub-zones : towns within the metropolitan centre and towns outside the 20 km. zone. The other centre was the Kalyani-Bansberia centre at the northern end of the metropolis, consisting of Chinsura-Hooghly on the west bank and Naihati on the east bank and all towns to their north. The population figures of the Calcutta Urban Agglomeration, disaggregated by these zones and centres, and other related variables, viz. density, gender ratio and literacy rate, are reported in Tables 5 to 13.

The sub-urban development around Calcutta is concentrated on the east bank where the core city and the Calcutta port. are situated. In 1951 the share of the

CALCUTTA

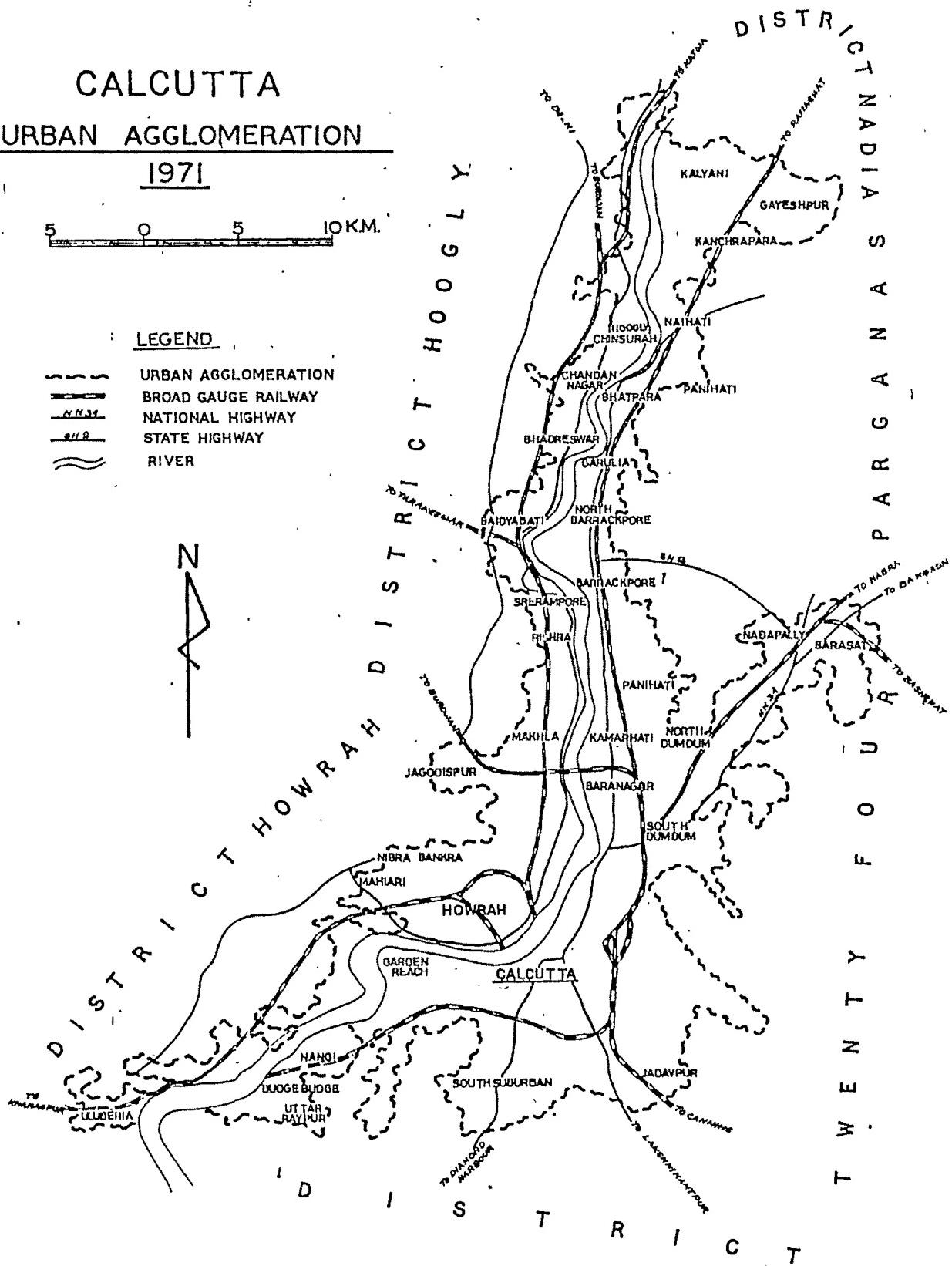
URBAN AGGLOMERATION

1971

5 0 5 10 KM.

LEGEND

- URBAN AGGLOMERATION
- BROAD GAUGE RAILWAY
- NATIONAL HIGHWAY
- STATE HIGHWAY
- RIVER

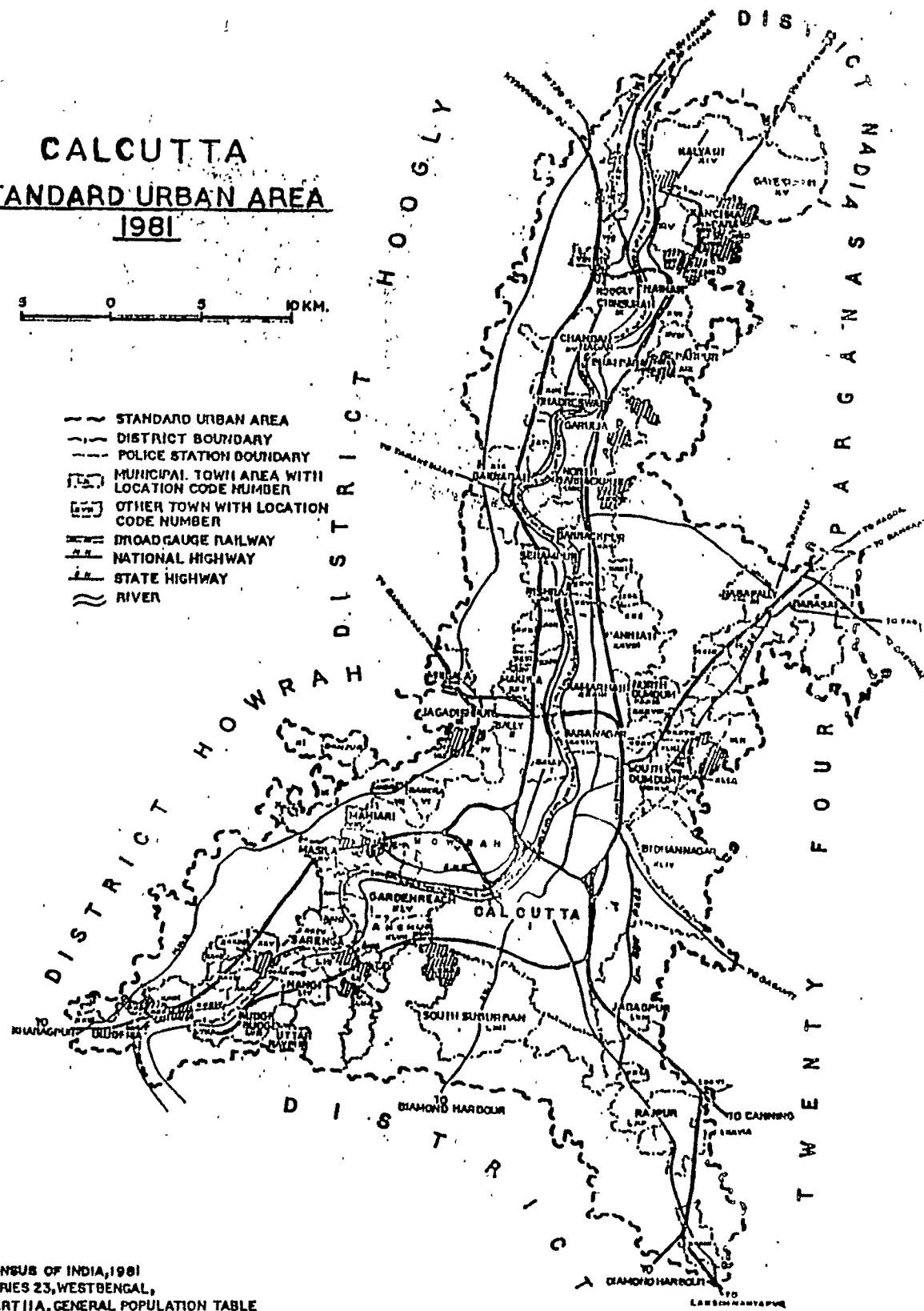


CALCUTTA
STANDARD URBAN AREA
1981

0 5 10 KM.



- STANDARD URBAN AREA
 - - - DISTRICT BOUNDARY
 - - - POLICE STATION BOUNDARY
 - [] MUNICIPAL, TOWN AREA WITH LOCATION CODE NUMBER
 - [] OTHER TOWN WITH LOCATION CODE NUMBER
 - - - BROAD GAUGE RAILWAY
 - - NATIONAL HIGHWAY
 - STATE HIGHWAY
 - () RIVER



А Т Т Е Н Д А
РЕГИСТРАЦИОННЫЕ
1981

100 - 200 - 300 - 400 - 500 - 600 - 700 - 800

east bank towns excluding Calcutta city, in the total urban population was 23 per cent, but, in 1981, it increased to 40 per cent, while the share of west bank towns including Howrah city increased from 19 per cent in 1951 to 24 per cent only in 1981 (Table 6). One important reason for this is the inadequate transport linking the east and the west banks.

Secondly, the suburban development has a clear south-ward thrust. Though, initially, in 1951, the southern zones, namely south-east and south-west, had a relatively small share of the metropolitan urban population (5.4 per cent and 0.6 per cent, respectively) their shares increased substantially by 1981 (to 12.7 per cent and 4.3 per cent, respectively). This was largely because the refugee settlements first came up in the south-east¹¹. Once the area became developed it attracted more population because of its proximity to the metropolitan core.

Thirdly, the suburban growth is still largely concentrated within the radius of 20 km. from the city centre. In 1951, the cities and towns (including Howrah) lying within 20 km. distance from Calcutta city accounted for 25 per cent of the metropolitan population, but their share increased to 41 per cent in 1981 (Table 6). Within this radius, the shares of the north-east and south-east zones showed relatively greater increase: the former increased from 7 per cent to 14 per cent and the latter from 5 per cent to 12 per cent during 1951-81 (Table 6). We derive the same conclusion if we go by the distribution of incremental urban population (Table 7) or the growth rate of urban population (Table 8). At the same time, the Kalyani-Bansberia centre is not growing fast enough. Its share in the metropolitan population increased from five per cent to only seven per cent in the thirty years during 1951-81 (Table 6).

Fourthly, the rate of population growth within the 20 km. radius from the city centre declined appreciably in the 1960s and 1970s, and the dispersal of population was over a larger area. For example, in the north-east zone within the 20 km. radius the growth rate was 83 per cent during 1951-61 while outside the 20 km. radius it was only 32 per cent (Table 8). Moreover, the suburban growth outside the 20 km. radius was relatively higher along the railway lines. Thus the areas in the north-east lying outside the 20 km. radius but served by railway transport had a growth rate of 32 per cent in 1951-61, while in the south-east the areas outside the 20 km. radius but not served by railway grew at the rate of 27 per cent. However, in the 1960s and the 1970s, the difference in growth rates between the 20 km. radius and outside reduced significantly (Table 8). We have mentioned that, the electrification of the suburban railway lines was completed during the 1960s which made commutation over a longer distance feasible. Besides, from November, 1966 private bus routes were extended from the city centre to a large number of towns in the CUA.¹²

Lastly, the suburban growth was not confined to the municipalities. In 1951 there were only five non-municipal towns in CUA: two of them were special category towns (namely, Barrackpore Cantonment and Ichhapore Defence Estate) and the other three were industry-based towns (namely Bauria, Uluberia, and Batanagar). In 1961, the number of non-municipal units was 40 and most of them belonged to the smaller size categories (Table 1). These non-municipal towns together accounted for seven per cent of the population of the Calcutta Urban Agglomeration (Table 9). The share of the non-municipal population increased over time to 12 per cent in 1981.¹³ Nearly 60 per cent of the non-municipal population was located within the 20 km. radius.

Demographic characteristics of suburbs

Demographic features of suburban population in terms of density, gender-ratio and literacy rate usually vary with distance from the core city and between municipal and non-municipal areas.

The population density usually declines with distance from the core city; thus we find in general a relatively higher density for the area within 20 km. radius from the centre (Table 11) and for the municipalities. In 1981, municipal areas within this 20 km. radius had an average density of 10792 persons per sq. km. Again, within the 20 km. radius, non-municipal areas had a much lower density - 4345 persons per sq. km. (Table 11). This regular pattern is somewhat distorted by the presence of old industrial towns with relatively high density despite their distance from the centre. This explains why municipal areas in the north-east zone outside the 20 km. radius showed a relatively higher average density in both 1961 and 1971.

As for the gender ratio, one would expect it to rise with distance from the centre. However, this rule does not seem to hold for Calcutta. While in the municipalities within the 20 km. radius it was more than 850 (females per thousand males) in 1981, in the municipalities outside the 20 km. radius, it was a bit lower (784). This was true also for the non-municipal areas. One possible explanation could be in terms of the location of a number of jute-towns with high incidence of male migrants outside the 20 kilometer zone. Further, the gender-ratio is generally higher in the non-municipal areas which indicates the higher incidence of family households in the non-municipal towns (Table 12).

As for the literacy rate, it is higher within the 20 km. radius area and also in the municipal towns compared to the non-municipal towns. In some non-municipal areas the literacy rate in fact decreased over time; for example, in the south-east zone, beyond 20 km. distance, it decreased from 74.3 per cent in 1961 to 56.97 per cent in 1971, and, within 20 km. radius, from 57.2 per cent to 53.9 per cent. While latter is due to reclassification of Jadavpur area as a municipality, the former is largely explained by the addition of new towns, which were hitherto regarded as backward rural areas (Table 13).

The growth of non-municipal areas is significant in view of the fact that the proportion of the built-up area to total area in many of the municipalities is not more than 60 per cent (Table 14). It is possible that these non-built-up areas are not suitable for urban development. An alternative hypothesis is that the high land prices within the municipal boundary pushes out people of meagre means in search of ownership houses (as in the case of the refugee population) to the non-municipal areas.¹⁴

Where from this suburban population comes? There is a popular belief that the huge population pressure on Calcutta city and the Calcutta Metropolitan Area results from continuous migration from its hinterland: the rural areas of Bihar, eastern UP and Orissa, and from the rural areas of West Bengal.¹⁵ To examine this issue critically we will now analyse the pattern of migration to the Calcutta Metropolis since 1961.

III. Migration and metropolitan growth

Here we will attempt to estimate migration to Calcutta metropolis by using census data. Such estimates need to be qualified by the following considerations. In

the first place, while we are looking for data on migration to Calcutta Urban Agglomeration, the census data on the birthplace migration are available only upto the district level.¹⁶ Since the Calcutta metropolis consists of Calcutta city (which is also a district) and parts of the urban areas of the four neighbouring districts, namely, Howrah, Hooghly, Nadia and 24-Parganas, we had to compute figures for migration to Calcutta Metropolis from such district-based figures. Table 15 shows the proportion of district urban area and population included in the Calcutta Urban Agglomeration in 1981 for each of these districts. While in the case of Nadia only 13 per cent of its urban population is included in the Calcutta metropolis, in the case of the other three districts the percentage varies from 86 per cent to 96 per cent.

We are taking into account the following streams of migrants to the urban parts of the four districts (excluding Nadia): (a) migrants from outside India, (b) migrants from other states of India, (c) rural-urban migrants from other districts of the state, (d) rural-urban migrants from within the district. Further, from district to district migration figures, available for 1971 and 1981, we have computed urban-urban migration to the urban part of the above four districts from the remaining districts of the state. We have excluded the within-district urban-urban migrants in case of these four districts because a major part of such migration is migration within the metropolis. The estimates are reported in Table 16.

Taking first the case of migrants from other states of India it can be observed that the number of migrants was highest in 1961 (1.27 million), but it declined to 1.04 million in 1971 when an adverse political situation was added to the economic stagnation of the sixties. Though in 1981, in a period of slow revival, the number of inter-state migrants increased (1.11 million), it was lower

than the 1961 level.

Also the number of migrants from Pakistan (now Bangladesh) was highest in 1961 (1.17 million), decreased in 1971 (0.99 million) but again increased in 1981 (1.09 million).

The same pattern is observed for rural-urban migration from other district of West Bengal. The highest number of migrants was in 1961 (0.41 million), but the figure declined to 0.25 million in 1971, and then rose to 0.31 million in 1981. The intra-district rural-urban migrants for these four districts too declined in number from 0.20 million in 1961 to 0.14 million in 1971, but then rose to 0.32 million in 1971. However, unlike other streams of migrants, the overall level was higher in 1981 than in 1961 (Table 16).

Thus, the growth of population in metropolitan Calcutta as a whole can not be attributed to migration as a major factor, as natural growth accounted for a much larger part. During 1971-81, migration accounted for only about 28.8 per cent of the population increase in greater Calcutta (Table 16) while in 1961-71 the absolute number of migrants as such declined. The higher proportion of natural increase was primarily due to economic stagnation¹⁷. Of course, natural growth itself has increased because population in Calcutta in the post-independence period consists more of settled population. Not only that refugee migration was basically family migration, but within-state migration flows too consisted increasingly of family units, as is evident from the increased gender ratio for intra-state migration (Table 18). Also the gender ratio for inter-state migration increased significantly in the urban part of Howrah, Hooghly, and 24-Parganas. It has been observed

further that migrant women have higher fertility rate compared to their non-migrant counterparts.¹⁸

To examine the relationship between the suburban population growth and migration we first note that within-district rural-urban migration, which by definition takes place in the areas outside Calcutta city, increased during 1961-81. So far as within-state inter-district rural-urban migration is concerned it declined in the core city during 1961-81, but increased in 24-Parganas (U) and Hooghly (U) (Table 17). Besides, it can be noted that while inter-state migration declined in the metropolitan Calcutta taken as a whole, during 1961-1981, it had increased in 24-Parganas (U) and Hooghly (U) but declined in Calcutta city. This is true also of refugee migration. It suggests, therefore, that at least some of the migrants from other states and from East Bengal (now Bangladesh) who initially came to Calcutta (city) had moved out subsequently to the suburbs. The intra-state inter-district urban-urban migration increased during 1961-81 in 24-Parganas, Howrah and Hooghly but declined in Calcutta. The increase was remarkable in 24-Parganas (U); from 38 thousand in 1961 to 381 thousand in 1981. A sizeable part of this within-state inter-district urban-urban migration was outmigration from Calcutta city. Table 20 shows migration to and from Calcutta city in relation to the three adjoining districts. It shows that the pace of outmigration from Calcutta to its adjoining urban areas accelerated in the 1960s and 1970s.

To find the relative importance of these different streams of migration in the suburban growth during 1971-81 we have considered in Table 19 the share of change in the number of migrants to the change in suburban population which is taken to be the sum of urban population in Howrah,

Hooghly and 24-Parganas. It is observed that during 1971-81, about 45 per cent of suburban population growth was due to migration of various types. Of this, inter-state migration accounted for only 7.4 per cent, migration from outside India (which mainly consisted of refugee migration) 11.6 per cent, intra-district rural-urban migration 9.9 per cent (we have ignored intra-district urban-urban migration as it would be mostly migration within the suburbs), within-state inter-district migration (excluding Calcutta, Howrah, Hooghly and 24-Parganas) 6 per cent and outmigration from Calcutta (only those who were born in Calcutta) accounted for 9.8 per cent of the suburban population change.

One interesting point to note, here, is that while for the Calcutta metropolitan area as a whole migration accounts for only 28 per cent of population change, for the suburban areas migration accounts for a much higher percentage of population change: about 45 per cent. This can be explained not only by the fact that recent migrants settle in the suburbs but also by outmigration from Calcutta - the core city - of the old migrants as well as those who were born in it.

IV. Inner city changes

Calcutta, the inner city, formally consists of Calcutta Municipal Corporation area and some special areas, namely, Fort, Canals and Port.¹⁹ It may be noted that the Calcutta Corporation area, in so far as the city area, has changed over time because of inclusion and exclusion of contiguous towns into Calcutta Corporation. Thus, in 1931, Cossipore-Chitpore and Maniktala, which were separate towns earlier, were merged to Calcutta. Garden Reach, though included in Calcutta in 1931, became a separate town

afterwards. Tollygunge, a separate town till 1951, merged to Calcutta in 1953.²⁰ In 1981 Calcutta Municipal Corporation had an area of 98.79 sq. km.²¹, compared to 73.40 sq. km. in 1951.²² In the present study we consider this area as the inner city area.

Table 21 shows the growth of population in the inner city since 1901. It could be noted that the growth rates of Calcutta unadjusted for the changes in area give a misleading picture of Calcutta's growth. In fact, in the present century, the inner city had a relatively faster growth during the decades 1931-41 and 1941-51 only; the decadal growth rates being 77 per cent and 24 per cent, respectively.²³ The higher growth rate of 1931-41 could be exaggerated, because, in the context of a high level of communal tension in 1941, each major community was trying to overrecord its numbers.²⁴ Therefore, the real growth during 1931-41 would be lower than 77 per cent and that for the 1941-51 would be higher. According to one estimate, the actual growth rates would be 53.5 per cent and 50.9 per cent for 1931-41 and 1941-51, respectively.²⁵

In any case, whatever be the actual figure, we see a phase of accelerated growth of Calcutta during 1921-51. Since then its growth not only decelerated (8.5 per cent in 1951-61, 7.6 per cent in 1961-71, and 4.9 per cent in 1971-81) but became slower than the natural growth rate estimated around 12 per cent (Table 22). Thus, in the recent decades the inner city has experienced net outmigration, and this is also revealed by the data on migration.

One important factor responsible for the slow growth and net outmigration is the relatively high density of Calcutta city. To take gross density, i.e., the ratio of population to total area, irrespective of its use, Calcutta (MC) had 32245 inhabitants per sq. km. in 1951, which was much higher than the density of other metropolitan (inner)

cities of India, namely, Bombay (9876 persons per sq. km.), Madras (11158 persons per sq. km.), and Delhi (7206 persons per sq. km.).²⁶ The high density of Calcutta is not simply because of the small share of roads (6-8 per cent) in total area but also because of a high net residential density (it is the number of people that can be housed per unit of area in residential block which include service roads, walks and small open areas).²⁷ The net residential density of Calcutta (72519 persons per sq. km. in 1961) is one and half of that of Bombay and twice that of Bangalore.²⁸ However, the higher net residential density is due both to the vertical expansion of the city, and to the very low per capita living space for slum dwellers. In 1971, in Calcutta city (excluding erstwhile Tollygunge) the registered bustees (slums)²⁹ alone accounted for more than one quarter of the total population, while the average density of these bustees was a very high 122197 persons per sq. km.³⁰

Another factor contributing to the slow population growth is the growing non-residential land/space use in inner city for administrative and commercial purpose. Though we do not have any firm data, it appears from indirect evidence that such growth in non-residential use is substituting residential use in areas like Burrabazar, Dalhousie and Chowringhee.³¹

The rise in demand for space within the inner city, the supply of which is highly inelastic, is resulting in a sharp increase in rent and land prices, which in turn is pushing out the low-income households living in old and low quality accommodation from the city. The consequent change in population composition in favour of the relatively high income people - the process of gentrification - is also leading to changes in land use in several areas. Given the high income-elasticity of demand for housing space,³² gentrification is giving rise to an increase in per capita space use. The reorganisation of space because of this

shift is leaving more space open and for use as road leading to a lower net residential density. In this situation the number of inhabitants that could be settled in the inner city is unlikely to increase appreciably even when the city expands vertically. Moreover, vertical growth has its own constraints.³³

The relatively better off people, unlike the single male migrants in low income jobs, represent a settled population living in family households, and have better education. With gentrification it is expected, therefore, that gender ratio and literacy rate would increase.

In fact, Calcutta, which had a male dominated population for long, witnessed a sharp rise in gender ratio in the recent decades (Table 21). While in the first half of the century there was less than five females per ten males and the gender ratio was declining during 1921-41, in 1951 there were almost six females per ten males. Subsequently over a period of three decades (1951-81), gender ratio increased from 580 females per 1000 males in 1951 to 712 females per 1000 males in 1981.

Coming to literacy rate, it could be observed that literacy rate was almost stagnant during 1941-51 and 1961-71 but it significantly improved during 1951-61 and 1971-81 (Table 21). However, it would be wrong to attribute those improvements in gender ratio and literacy solely to gentrification; secular forces at work also contribute to such improvements. It is not, however, possible to say from the data we have, how far and to what extent such improvement is due to gentrification alone.

Intra city variations

So far we have studied the demographic trends for the inner city as a whole. There are, however, significant intra-city variations. In this section we are attempting to analyse these variations for the decades 1951-81³³ on the basis of ward-wise census data for Calcutta Corporation.

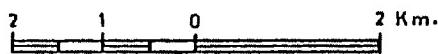
It may be noted that, between 1951-81, in Calcutta Corporation's area, the ward boundaries were changed thrice. While in 1951 the city (excluding erstwhile Tollygunge municipality which was merged to Calcutta (MC) in 1953) had 32 wards, in 1961 the city area including Tollygunge was divided into 80 wards and, in 1971, the same area³⁴ was divided into 100 wards. Again in 1981, census data were available for 100 reorganised wards, although the reorganisation was effected in 1984. In order to avoid the statistical problems created by the changes in the ward boundaries, the inner city area is divided here into eight zones, each consisting of several wards, which cover approximately the same areas over this period as is seen comparing maps in various census years. Thus, while the boundaries of wards within a zone have changed during the period, there has been virtually no change in the areas within each zone. While the details of constituent wards in each zone and in each census year are reported in Table 23, we delineate here the zones by the local names of the constituent areas :

- Outer North : Cossipore, Sinthi, Paikpara, Belgachhia, and Chitpur;
- Inner North : Shyampukur, Kumartoli, Burtola, Sukea Street, Jorabagan, and Jorasanko;
- Central Business District : Dalhousie, Chowringhee (up to Park Street), Bowbazar, Colootola (part), and Barabazar;

CALCUTTA

WARDS & ZONES (1951)

SCALE



LEGEND

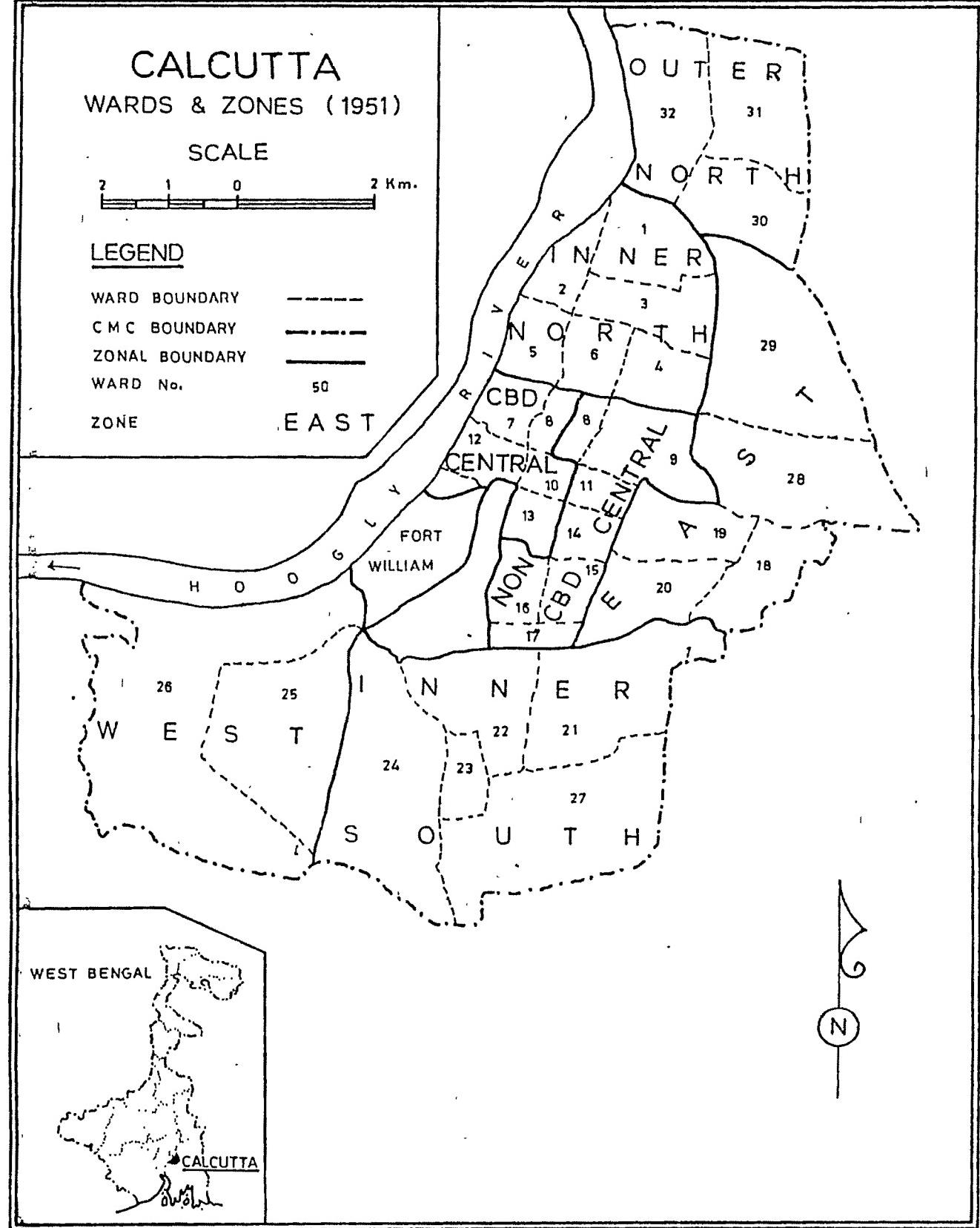
WARD BOUNDARY -----

CMC BOUNDARY - - - -

ZONAL BOUNDARY - - -

WARD No. 50

ZONE EAST



CALCUTTA

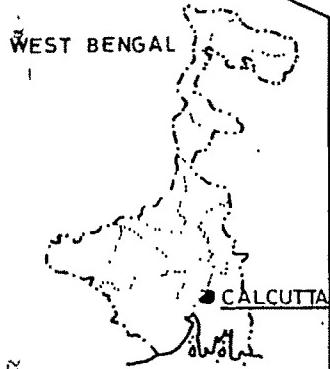
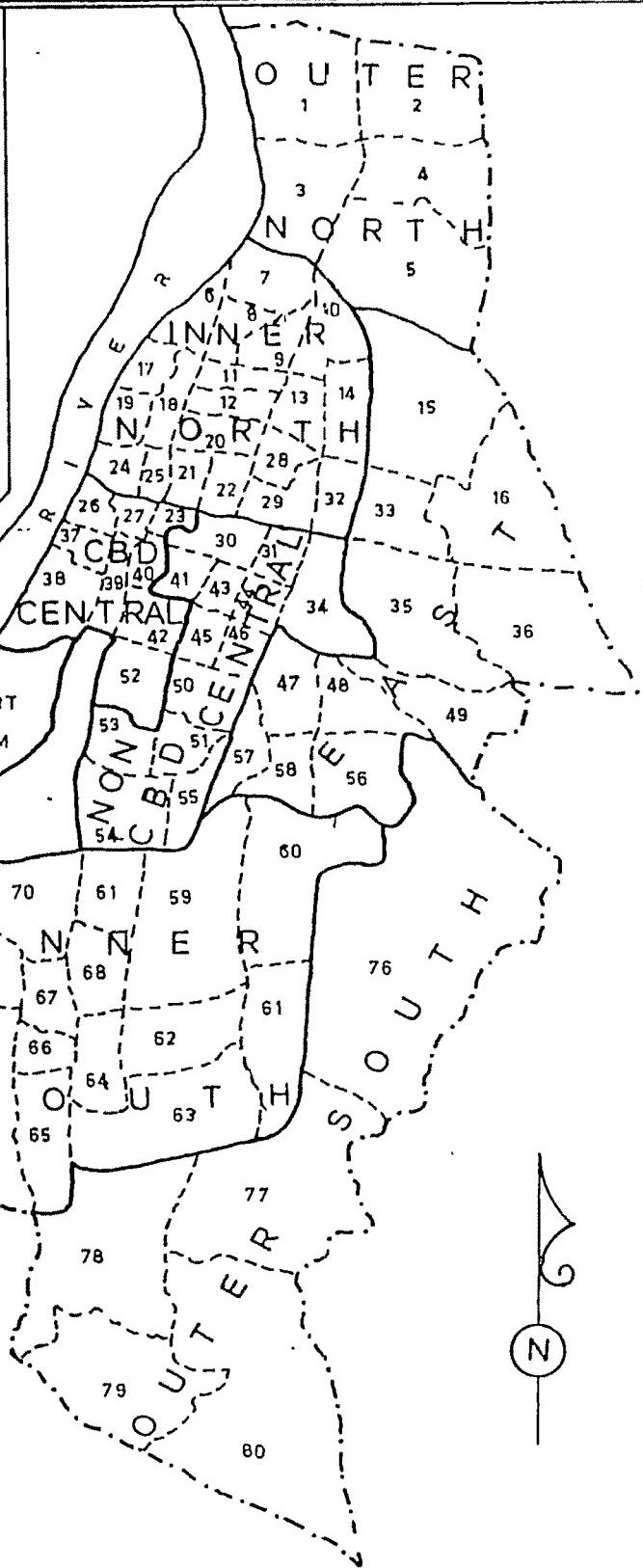
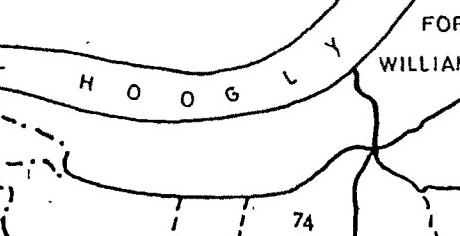
WARDS & ZONES (1961)

SCALE

2 Km.

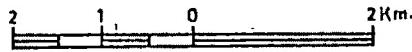
LEGEND

- WARD BOUNDARY -----
- CMC BOUNDARY - - - -
- ZONAL BOUNDARY ———
- WARD No. 50
- ZONE EAST



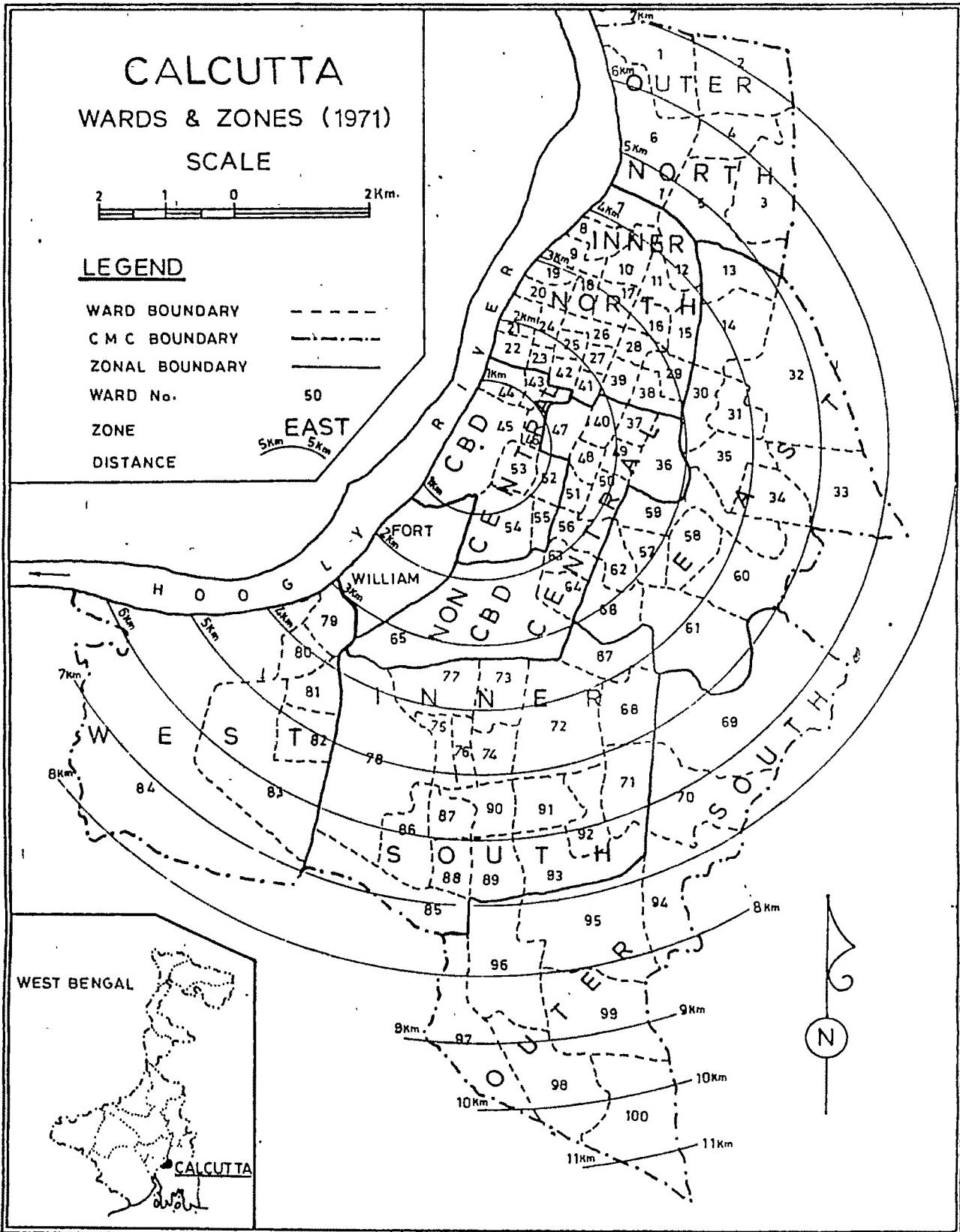
CALCUTTA
WARDS & ZONES (1971)
SCALE

2 1 0



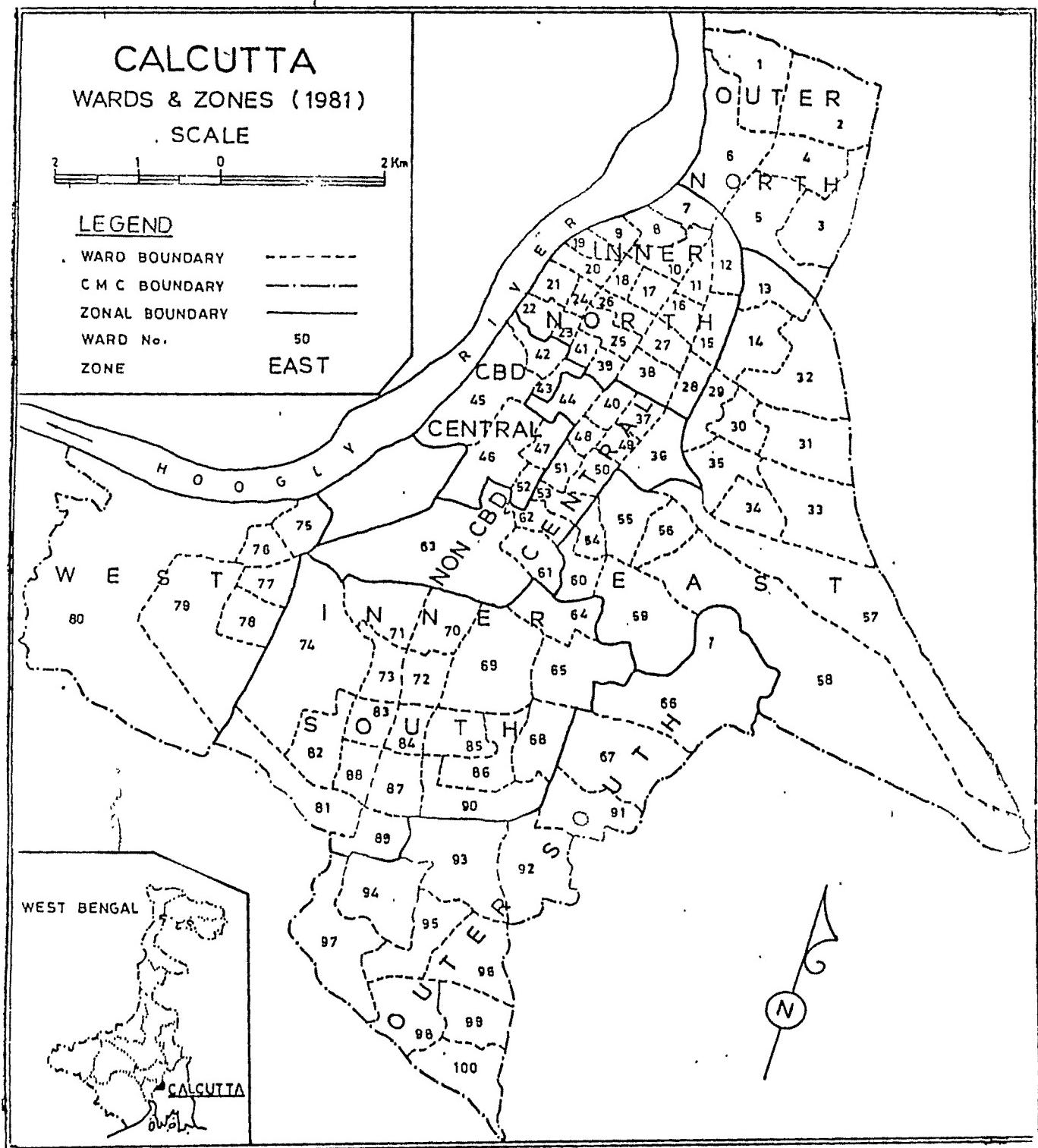
LEGEND

WARD BOUNDARY
 C M C BOUNDARY
 ZONAL BOUNDARY
 WARD No.
 ZONE
 DISTANCE



1/11/1981

GATEWAY



- Non-CBD P Colootola (part), Muchipara, Taltola,
Central Park Street, and Chowringhee (south of Park
Street);
- East : Maniktola, Beniapukur, Beliaghata, Entally,
Tangra;
- West : Ekbalpur, Watgunge and Hastings;
- Inner South : Ballygunge (old), Bhowanipore, Kalighat,
Alipore, Chetla;
- Outer South : Erstwhile Tollygunge municipality area.

The area of each zone had been estimated by adding the areas of the constituent wards (Table 24). It may be pointed out here that Maidan (central open space) was not included in Calcutta Corporation before 1961.³⁵ As it falls both in the CBD and non-CBD-Central zones we have prepared alternative area estimates for these two zones including and excluding Maidan area. G 1 S 5856

However, the estimated areas of some of the zones vary appreciably from one census to another. For example, the area of the West zone declined from 13.28 sq. km. in 1961 to 11.64 sq. km. in 1971, largely because of change in the boundaries of wards falling within a zone. Thus, inclusion of parts of the 1951 area of East zone in Inner South and Outer South in 1961, has led to a decline in the area of East zone by 1961. However, such changes are usually of marginal order. In some instances the figures given in census are wrong; and as a consequence, the areas of individual wards constituting a zone do not always add up to the total area of the zone in two consecutive censuses, despite there being no boundary change. In case of east zone again, from the maps we see that the area of the zone has increased between 1961 and 1971; however, when we add the area of the constituent wards, the total comes to be less in 1971 (15.89 sq. km.) than in 1961 (16.30 sq. km.).³⁵

These limitations would weaken the comparability of growth rates and density figures over time. The other ratio variables not directly related to area, namely, gender ratio, literacy rate and household-size are unlikely to be affected so far as comparability over time is concerned.

Going by these zones we analyse below the pattern of variations of density, gender ratio, literacy rate and population change within the inner city.

Density

Gross population density being the ratio of population to total area is sensitive to land-use pattern. In Calcutta, unlike the cities in the West, land use is highly mixed in nature; residential use coexists with commercial and industrial use not only in the same area but sometimes in the same premises also.³⁷ Again, the residences of low and high income groups are mixed; slums are interspersed with posh localities. Considering the registered bustees (slums) only, it could be observed from Table 27, that bustees are present, in varying degrees, in all the zones. Nevertheless, a zone could be characterised by its predominant land use: for example, the Inner South is predominantly residential.

Coming to the intra-city density variations, it may be observed that, though the density in the CBD (Dalhousie-Burabazar-Chowringee) is relatively high, it is less than that of the closely located residential zones, namely, Inner North (Jorasanko-Jorabagan-Colootola-Kumartuli-Shampukur-Burtola) and non-CBD Central (Bowbazar, Taltola-Park Street etc.). While in 1951 CBD had a density of 56 thousand persons per sq. km., Inner North and non-CBD Central had densities of 89 thousand and 61 thousand persons per sq. km., respectively.³⁸ Relatively low density of CBD is due to extensive non-residential land use for office and commercial purposes.³⁹

Inner North has high density because it consists of densely packed old residential settlements along narrow roads with few open spaces like parks and play grounds. Moreover, slightly more than one-fifth of its population lived in bustees in 1971. Jorasanko, one of the oldest residential areas, in this zone had a density as high as 113400 persons per sq. km. in 1951 (Table 26).

In the zones distant from CBD, density is much lower. For instance in Outer South (Tollygunge municipality), which is seven to ten kilometres away from CBD, density was about ten thousand persons per sq. km. in 1951. In Outer North (Cossipur-Sinthi-Belgachia), at a distance of four to seven kilometres from CBD, density was 20 thousand persons per sq. km. Though West zone lies within three to seven kilometre from CBD, it has a density of 17 thousand persons per sq. km. because a large area in this zone is occupied by the port, its railway lines and warehouses.⁴⁰ However, residential parts within this zone show a high density, e.g., Ekbalpur with 69 thousand inhabitants per sq. km. The East zone, which is mostly at a distance of three to five kilometres, had a density of 23929 persons per sq. km. in 1951. Although many industries are located in this zone⁴¹ the density was not so low because of a high proportion of bustee population. As we see from 1971 figures, in this zone 18 per cent of the area was covered by the registered bustees and 43 per cent of the population lived in these bustees. Inner South (old Ballygunge, Bhowanipore etc.) located at a distance of three to six kilometres from CBD had a density of 29562 persons per sq. km. Though the zone consisted of mostly high and middle income people's residence, even here one fifth of the population lived in the bustees in 1971 (Table 27).

Within a zone areas at a greater distance from CBD show a lower density compared to the areas close to CBD. Thus within Inner North the areas like Shyambazar, Kumartuli, Sovabazar, more than four kilometres away from CBD, show a lower density compared to Jorasanko-Jorabagan area located within two kilometres of CBD.

Some old residential areas, despite their distance from CBD, show a high density compared to other areas at similar distance; for instance, Kalighat which is about five kilometres away from CBD, shows a higher density relative to the other areas in the neighbourhood, largely because of congested development with narrow roads and a few open spaces.

While, on the whole, this pattern of intra-city density variations persisted in 1981, the differences between zones declined over time indicating faster growth in low density areas. For instance, while in 1951 density of Outer South was only one-ninth of the density of Inner North (the most densely populated zone), in 1981 the density of Outer South is about one-fifth of that of the Inner North. Similarly for East and West also density difference with Central and Inner North areas diminished over time (Table 26).

Gender Ratio

For Calcutta as a whole gender ratio is low but increasing in recent decades. There are, however, significant intra-city variations (Table 28). In CBD, which shows a high level of concentration of migrants from Bihar, Uttar Pradesh, and Rajasthan,⁴² population is highly male dominated. In 1951 there were about three females per ten males. The other two zones with relatively low gender ratio were West (441 females per 1000 males) and non-CBD Central (516 females per 1000 males). While in the non-CBD Central lower gender

ratio is explained by the concentration of migrants from different parts of India⁴³, in the west it is due to the concentration of labourers from Bihar and Uttar Pradesh among workers in the port and the port-based industries.⁴⁴ Relatively higher gender-ratio is observed in the peripheral zones, namely, Outer North (649), Outer South (646) and East (689). Each of these zones had a sizeable number of displaced Bengali migrants,⁴⁵ who, unlike the non-Bengali migrants from Bihar, Orissa and UP, came with their families. Inner South - a predominantly residential area inhabited mostly by upper middle income group had a higher gender ratio (670) compared to Inner North (610), an old residential area close to CBD. Though inter-zone differences declined over time, this broad pattern of intra-city variations of gender-ratio continued in 1981. What is to be noted further is that, upto 1971, gender ratio was almost constant in CBD, non-CBD Central and Inner North, increased very slowly in East, West and Inner South, but it rose fast in Outer North and Outer South - the areas of new residential growth. In contrast, during the decade 1971-81, gender ratio increased sharply in most of the zones, particularly in the CBD and non-CBD Central. Gender ratio increased in CBD from 322 in 1971 to 434 in 1981 and in non-CBD Central from 507 to 563 in the same period. That this is due to increasing proportion of family households is also evident from the appreciable increase in household size in these two zones (Table 29).

Literacy Rate

Literacy rate is a crucial indicator of gentrification. It has been observed in Calcutta that the areas which show concentration of bustee population, namely, East, West, and Outer North (more than one-third of the population lived in bustees in these zones in 1971 : see Table 27) have lower literacy rates (Table 30),

whereas Inner and Outer South, consisting largely of residential quarters of relatively well-to-dos, have higher literacy rates. It is observed further, while in the decade of 1961-71 literacy rate was stagnant in most areas excepting CBD where there was a noticeable drop, during 1971-81 it showed appreciable increase in most of the zones particularly in CBD, East, West and Outer South.

Population Growth

Coming to population change, it could be observed that though the inner city as a whole had a slow and declining growth, as seen above, some areas within the city had a faster growth than others (Table 25). Going by the zones it can be observed that the relatively high density areas, namely, CBD (Burrabazar - Dalhousie Chowringee), non-CBD Central (Bowbazar-Taltola-Park Street) and Inner North (Jorasanko-Jorabagan-Shyambazar-Sovabazar) have experienced either a low (less than five to six per cent in thirty years) growth or decline during 1951-81. Specifically, a decline of population occurred in CBD during 1951-61 and again during 1971-81, as also in non-CBD Central during 1961-71, which may be partly due to a shift from residential land use to non-residential land use and partly due to substitution of low income people by high income ones as is indicated by the rising literacy rate and gender ratio. Moreover, it may be noted that in CBD and non-CBD Central population growth had been slow during 1971-81 inspite of the increase in the number of multistoried buildings.

In contrast, the low density zones in the periphery, namely Outer North (Cossipur-Sinthi-Belgachhia), Outer South (earlier Tollygunge municipality), East (Maniktala-Ultadanga-Narkeldanga-Entally-Tangra), and West (Ekbalpur-Khidderpore-Hastings) had higher rates of growth varying between 40 per cent and 50 per cent during 1951-81.

Ward-based Analysis

While analyses by the broad zones are useful to identify the major trends observed within the inner city, many of the micro changes in the complex process of demographic adjustments are overlooked. A ward-based analysis would provide a closer view of the process. Therefore, we undertake below a limited ward-based study. However, the study is confined to the period 1971-81, and for a subset of wards which are comparable in 1971 and 1981 Census.

The most striking result of the ward-based analysis comes to be the absolute decline of population in most of the relatively high density wards during 1971-81. Taking 75000 persons per sq. km. (which is slightly more than the net residential density of Calcutta) as the cut-off point, we see that, all the wards with a higher density had suffered a decline of population varying from about 5% to more than 27%, excepting one (Table 32). These wards are situated in CBD or in its vicinity - one to three kilometres from the city centre (Table 31). The exception is observed for the ward-group 81 and 82 (of 1971) located in the Khidderpore-Ekbalpore area, which is, however, not far away from CBD.

Some of the low density wards also suffered depopulation mostly within the range of 10 per cent. While the decline of population (by 43 per cent) in the low density wards 43-44-45, in the CBD may be explained in terms of further increase in the administrative and commercial use of space, that in the other low density wards, e.g., wards 67, 71, 88, 90, 91, all in Inner South, may be due to the removal of slums and squatter colonies; or the growth of business area.

Generally speaking, relatively high growth rates of 15 per cent and above⁴⁷ have been observed in the relatively low density areas, away from the Central Business Area.

Moreover, the ward based analysis indicates a process of gentrification in various parts of Calcutta city. As we have discussed earlier, sharp rises in gender ratio and literacy rate are useful indicators of gentrification. Taking an increase of 20 percentage point or more in literacy rate, as indicating a sharp increase⁴⁸ we find that some areas like wards 81 and 82 in West (Khidderpore-Ekbalpore), wards 67 and 86 in Inner South (Park Circus and New Alipore) and wards 19 and 26 in Inner North (Kumartoli and Shyampukur) had sharp rise in literacy rate during 1971-81 and in all these areas gender ratio also improved.

Besides, there are wards in which population has increased but gender ratio has declined. These areas include Belgachhia, (wards 5, 11, 12 of 1971) in Outer and Inner North, Bagnari-Maniktola and Belaghata (wards 14, 32, 33) in East and ward 73 in Inner South. For most of these areas increase in literacy rate is relatively small. Therefore, it appears that alongside the process of gentrification observed in some parts of the city, there has been a concentration of low income labouring people in some of the other pockets.

V. Conclusion

To summarise, there are five major trends. First, the suburban growth has accelerated and the growth of resident population in the city core has almost come to a halt. Second, suburban growth has a southward thrust. Third, suburban growth is concentrated within the 20 km. radius from the centre. Fourth, apart from the natural increase, the

suburban population increase is contributed mainly by within-state rural-urban migration, migration from East Bengal (Pakistan/Bangladesh) and out-migration from Calcutta city. Fifth, the process of gentrification of the inner city has started.

To put these trends in a perspective we should note first, that these trends were observed in a period of industrial stagnation, when income and employment increased slowly, migration was low and the pace of formation of household was slow. Had there been no stagnation in the Calcutta Metropolitan region, some of these trends would have been accelerated.

Secondly, the trends of metropolitan growth in a capitalist economy are mostly an outcome of the play of market forces, which influence land values and rentals. Calcutta is no exception. Therefore, in the long run trends which are essentially market oriented, cannot be halted unless market forces are regulated. For example, suburban movement induced by high land values and the process of gentrification within the core city cannot be stopped.

With this perspective we may consider the policy implications of the trends of metropolitan growth in Calcutta. The suburban growth would imply that the day-time population of the city will be greater than night-time population. Hence the infrastructural and other facilities should be provided suitably to cater to the need of the day-time population. Where the night-time population does not increase, or might even decline, in view of the phenomenon of 'gentrification' the demand for infrastructure and other facilities might go up. Therefore, the scope for decentralising the employment opportunities away from the core city should be explored.

The southward suburban development is most likely to be accelerated in future. After the completion of the Second Hooghly Bridge, the south-west zone would have a better accessibility to the CBD. Besides, projects like Eastern Metropolitan Bypass, Baishnabghata-Patuli township and East-Calcutta township would help suburban development in south-east too.

A significant part of the suburban population live in non-municipality areas which are mostly unplanned and lack the minimum urban facilities. While the process of suburbanisation cannot be contained, priority should be given to a planned suburban development.

Notes and References

1. CMPO, Basic Development Plan, 1966, p.14.
2. Census of India 1981, Series 12-Maharastra, Part-2A, p.132.
3. The Basic Development Plan prepared three sets of population projections for Calcutta Metropolitan District, viz., 'upper bound', 'most likely' and 'lower bound' on the basis of various combinations of assumptions regarding mortality and fertility rates; and each set of projections has three estimates relating to different assumptions regarding net migration rate. The lowest estimate of 'most likely' projections was 11.90 million in 1981 (CMPO, 1966, op.cit., p.69). However, the actual population of CMD in 1981 (in fact, covering a larger area than that in 1966) is 10.11 million.
4. See R.E. Dickinson, The City Region in Western Europe, 1967, pp.68-69.
5. For a historical account of the early development of these towns, see P. Banerji, 1975, pp.70-101.
6. Census of India 1961, District Census Handbook-Hooghly, p.i. : District Census Handbook-24 Parganas, p.(20).
7. CMPO, Traffic Study, 1971, p.7; CMPO, Basic Development Plan, 1966.
8. CMA is taken equivalent to Calcutta Urban Agglomeration in Census of India 1981.
9. In Census 1971 Bally Municipality was merged with Howrah City and the former's population was not reported separately. Hence, for the sake of uniformity Bally (M) is treated as a part of Howrah city throughout.
10. This 20 km. distance is computed on the basis of Map-20 in Basic Development Plan (CMPO, 1966, p.58).
11. See P. Chaudhuri, Refugee in West Bengal, 1983, p.20.

12. CMPO, Traffic Study, 1971, p.7.
13. This happened inspite of Jadavpur being elevated from non-municipal to municipal town in 1974.
14. See D.D. Hain, Land Policy and Urban Growth, 1977, p.79.
15. See, for example, Basic Development Plan (CMPO, 1966, p.11).
16. Census of India 1981 reports migration figures for Calcutta Urban Agglomeration. However we cannot use it as comparable figures are not available for earlier censuses.
17. See Bertrand Renaud, National Urbanization Policy in Developing Countries, 1981; p.88.
18. S.B. Mukherjee, Studies on Fertility Rate in Calcutta, 1961, p.60f.
19. The Port's land area is included in the adjoining wards of Calcutta Corporation; and the corresponding population. The port's sea-going and inland vessels' population is shown against Port and the area reported against it is Calcutta's share of river Hooghly (Census of India 1971, Series 22, Part 10A and B, District Census Handbook, Calcutta, p.12.).
20. Census of India 1981, Series 23-Part 2A, p.245fn.; Census of India 1961, District Census Handbook, 24-Parganas, p.(20).
21. Census of India 1981, Series 23-Part 2A, p.106.
22. Census of India, 1951, Vol. 6, Part 3, p.84.
23. Growth rates of Calcutta City without adjusting for the changes in area:

1921-31	30.7 per cent
1931-41	78.8 per cent
1941-51	23.1 per cent
1951-61	14.3 per cent

24. See Asok Mitra's report in Census of India 1951, Vol. 6 Part-3 (Calcutta City) p. xiii.

25. These estimates are based on the assumption, as suggested by Asoke Mitra (Census of India 1951, V.6-Pt.3, p. xiii), that the actual population of Calcutta in 1941 would be around 1730074, which was the estimate prepared at the time of house listing.
26. Estimated from data provided in Census of India 1951, Vol. I, Part 2A.
27. CMPO, Basic Development Plan, 1966, p.80.
28. CMPO, Basic Development Plan, 1966, p.16.
29. According to Bustee Survey in Calcutta 1958-59 average per capita living space in bustees was 31.52 sq. ft. approximately. (Govt. of W.B. Report on Bustee Survey in Calcutta, 1958-59, Vol. 17, pp.38-39).
30. A registered bustee, as defined in the Calcutta Municipal Act 1951, is an area containing land occupied by or for the purpose of any collection of huts on a plot not less than ten kathas (1/6 acre) in area (CMPO, 1966, p.91). These registered bustees constitute only a subset of all bustees in Calcutta.
31. See N.K. Bose, Calcutta: A Social Survey, 1968, pp.15-22, Census of India 1981, Series 23, Part VII.
32. See, for example, R.F. Muth (1960), pp.27-96.
33. Apart from municipal laws, huge investment required for skyscrappers is also a constraining factor.
34. Though the area of Calcutta Municipal Corporation is same in terms of maps (printed in District Census Handbooks) in 1961 and in 1971, the computed area in 1961 (95.60 sq.km.) is less than that in 1971 (98.79 sq. km.). Calcutta Corporation area has changed subsequently in 1984 when Jadavpur, Garden Reach and South Suburban municipalities merged to it; and the Corporation area is divided into 140 wards. However, in 1981 Census, ward level data for Calcutta Municipal Corporation were compiled for the reorganised 100 wards of 1984, which corresponded to the Calcutta Corporation area in 1981.

35. As per maps of Calcutta in District Census Handbook of Calcutta for 1951 and 1961.
36. Data relating to area of Calcutta city, Calcutta Corporation and its wards have various inconsistencies in 1971. For instance, while the Surveyor General of India estimates the area of Calcutta city (district) to be 104.00 sq. km., the sum of the areas of its constituents, namely, Calcutta Corporation, Fort, Canals etc. comes to 106.02 sq.km. The area of Calcutta Corporation is 98.97 sq.km. in 1971, higher than that in 1961 (95.0 sq.km.) though from the inspection of the maps given in District Census Handbook of Calcutta for 1961 and 1971 we see the area to be same for the two years. Furthermore, the area of Ward 4 in 1971 was reported to be 7.64 sq.km., which seems to be a gross over-estimate when we inspect the map. Comparing maps of Calcutta for 1961 and 1971 we estimate the area of Ward 4 to be 0.84 sq.km. approximately. Then, however, the sum of the area figures for the Corporation wards comes to be 92.20 sq.km. which is less than the reported aggregate area of the Corporation.
37. For instance, in 1980 the proportion of 'census houses' (a census house is a building or part of a building having a separate main entrance from the road or common courtyard or staircase etc., used or recognised as a separate unit) used as residence-cum-shop/workshop including household industry is 6.1 per cent (Census of India 1981, Series 23, Part-VII, pp.16-17).
38. These density figures are computed excluding the corresponding Maidan area.
39. In 1961, 44 per cent of the total space in CBD was used for trade, commerce and administrative purposes. (Computed from data given in N.K. Bose, Calcutta : A Social Survey, 1968, pp.15-22).
40. N.K. Bose, Calcutta, 1968, p.23.
41. Ibid., p.23.

42. Ibid., p.36 and p.96.
43. Ibid., p.96.
44. Ibid., p.96.
45. Ibid., p.95.
46. See CMPO, Basic Development Plan, 1966, p.16.
47. Since the natural growth rate of Calcutta during 1971-81 is estimated to be around 12 per cent, we choose 15 per cent as the cut off point.
48. As the new literates in a decade would belong to the age group 5-14, which consists of around 20 per cent of population in 1981, we choose 20 percentage point increase as the upper limit of normal increase in literacy rate.

TABLE - 1

Size distribution of cities and towns in Calcutta UA, 1901-1981

<u>Population size</u>	<u>1901</u>	<u>1951</u>	<u>1961</u>	<u>1971</u>	<u>1981</u>
100000 and above	2	5	9	11	17
50000 - 99999	-	9	11	16(1)	17(3)
20000 - 49999	8	14	16(4)	15(9)	14(11)
10000 - 19999	11	8(4)	12(12)	22(22)	28(28)
5000 - 9999	4	1(1)	18(18)	24(24)	25(25)
Below 5000	-	-	6(6)	6(6)	6(6)
Total	25	37(5)	72(40)	94(62)	107(73)

Notes : (i) Figures in brackets show the number of non-municipal units including 'notified areas' and cantonments.

(ii) During 1901 and 1951 twelve new towns emerged. In 1951-61 there were 34 new towns and Bally town was splitted to form two towns Bally(M), and Bally(H). During 1961-71, 26 new towns came up and four towns of 1961 including Bally (M) were merged to Howrah city. In 1971-81 there were 23 new towns, while nine towns merged to Jadavpur to form Jadavpur (M), one merged to Gayeshpur, and one (Narayanpur) declassified; besides Bally(M) was treated as a seperate town .

Sources : Census of India 1981, Series 23-Part 2A;
Census of India 1971, Series 22-Part 2A.

TABLE - 2

Projected population of Calcutta Metropolitan District, 1991-2021

Year	C M D.	Calcutta city	Other municipal units	non-municipal units
1981	9.98 (actual)	4.13 (42)	3.92 (39)	1.93 (19)
1991	12.07 (12.23-11.93)	4.52 (38)	5.00 (42)	2.55 (21)
2001	14.58 (15.00-14.31)	5.03 (34)	6.50 (45)	3.05 (21)
2011	17.09 (18.31-16.02)	5.42 (32)	7.74 (45)	3.93 (23)
2021	19.65 (22.26-19.04)	5.94 (30)	9.42 (48)	4.29 (22)

- Notes : (i) The figures relates to 'most likely' variant of projections. In second column the figures in brackets show highest and lowest value of alternative projections.
- (ii) Bracketed figures in third, fourth and fifth columns show percentage of CMD population.
- (iii) Calcutta city includes Gardenreach, Jadavpur, and South Suburban municipalities.
- (iv) Population projections are made for the CMD and the municipalities. Population for the non-municipal areas are calculated by subtracting the municipal population from the CMD total.

Source : Study Group on Demographic Profile of CMD, State Planning Board, Government of West Bengal, 'Demographic Profile of Calcutta Metropolitan District', 1989.

TABLE - 37

Population in Calcutta Metropolitan Area¹, 1961-81

	Area (sq.km.)	Population		
		1961	1971	1981
Urban	906.92	6039861	749998	9335985
	(60.9)	(93.4)	(92.9)	(92.3)
Rural	581.46	428486	569931	777051
	(39.1)	(6.6)	(7.1)	(7.7)
Total	1488.38	6468707	8069919	10114036
	(100.00)	(100.00)	(100.00)	(100.00)
		Population Density (per sq.km.)		
Urban		6660	8870	10295
Rural		737	980	1336
Total		4346	5422	6798
		Decadal Population Growth (percentage)		
Urban		24.2	24.5	
Rural		33.0	36.3	
Total		24.8	25.3	
		Gender Ratio (females per 1000 males)		
Urban		783		
Rural		903		
Total		791		

¹ Same as Calcutta Standard Urban Area (Census of India 1981) or Calcutta Metropolitan District (CADA, Report No. 171, November 1982).

Note : Rural-urban classification relates to Census 1981.

Source : Census of India 1981, Series-23, Part - II A.

TABLE - 4

Growth of Calcutta Urban Agglomeration (CUA) and Calcutta City (CC), 1901-1981

Population ('000) CUA CC	Share of CC in CUA	Share of CC in population	Decadal growth (%) CUA CC
(%)			incremental population of CUA
1901 1510	994	61.84	-
1911 1745	1016	58.24	35.16
1921 1884	1053	55.89	26.46
1931 2139	1221	57.10	66.10
1941 3621	2167	59.85	13.48
1951 4669	2698	57.79	63.81
1961 5984	2927	48.92	69.34
1971 7420	3149	42.43	17.41
1981 9194	3305	35.95	15.41
			24.01
			7.57
			23.90
			4.96

Note : Calcutta city (1981) population figures are unadjusted population.

See Table 22 below.

Source : Computed from data from Census of India, 1981, Series 23 - West Bengal, Part 1A, General Population Tables, p.245.

TABLE - 5

Zonal distribution of Calcutta Urban Agglomeration population, 1951-1981

Zone	1951	1961	1971	1981
1 Calcutta City	2698494	2927289	3148746	3305006
2 North-east	813081	1233889	1837229	2493473
a. inner area	309964	569936	900804	1266277
b. outer area	503117	664953	936425	1227196
3 South-east	252285	485127	764434	1169434
a. inner area	213215	435639	692574	1067038
b. outer area	39070	49488	71860	102396
4 Howrah City ^φ	466768	633851	737877	892144
5 North-west	383379	538130	690929	943537
a. inner area	153325	220528	290390	379033
b. outer area	230054	317602	400539	564504
6 South-west	25552	165383	241085	390404
a. inner area	-	72041	123447	216402
b. outer area	25552	93342	112638	174002
7 Calcutta UA	4669559	5933669	7420300	9194018
8 Suburb				
a. inner area ^{φφ}	676504	1297144	2012215	2928750
b. outer area	797793	1125383	1521462	2068098
9 Kalyani-Bansberia zone ^η	234074	329730	436344	643239

^φ Includes Bally municipality.

^{φφ} includes 2a, 3a, 5a and 6a.

^η Kalyani-Bansberia zone includes Bansberia, Hooghly-Chinsura, Madhusudanpur, Naldanga, Koeta, Bandel Tharua Power Township, Kalyani, Gayeshpur, Kancharapara, Halisahar, and Naihati.

Note - 'Inner area' comprises of towns within 20 km. distance from Calcutta City. 'Outer area' comprises of towns beyond 20 km. from Calcutta.

Source : Census of India 1981, Series-23, Part - 1A (computed).

TABLE - 6

Zone-wise distribution of Calcutta Urban Agglomeration population (in percentage) 1951-1931

Zone	1951	1961	1971	1981
1 Calcutta City	57.79	48.92	42.44	35.95
2 North-east	17.41	20.62	24.76	27.12
a. inner area	6.64	9.51	12.18	13.77
b. outer area	10.77	11.11	12.58	13.35
3 South-east	5.40	8.11	10.30	12.72
a. inner area	4.56	7.28	9.33	11.61
b. outer area	0.84	0.83	0.97	1.11
4 Howrah City ^φ	10.64	10.59	9.94	9.70
5 North-west	8.21	8.99	9.31	10.26
a. inner area	3.28	3.68	3.91	4.12
b. outer area	4.93	5.31	5.40	6.14
6 South-west	0.55	2.76	3.25	4.25
a. inner area	-	1.20	1.73	2.35
b. outer area	0.55	1.56	1.52	1.90
7 Calcutta UA	100.00	100.00	100.00	100.00
8 Suburb				
a. inner area ^φ	14.49	21.68	27.12	31.85
b. outer area	17.03	18.81	20.50	22.49
9 Kalyani-Bansberia zone ^φ	5.01	5.51	5.88	7.00

^φ See below Table-3.

Source - Computed from Table-3.

TABLE- 7

Zone-wise distribution of incremental population in
Calcutta Urban Agglomeration, 1951-81 (in '000)

Zone	1951-61	1961-71	1971-81	1951-81
(1)	(2)	(3)	(4)	(5)
1 Calcutta city	229 (17.4)	221 (15.4)	156 (8.8)	606 (13.4)
2 North-east	421 (32.0)	600 (41.8)	659 (37.2)	1680 (37.1)
a. inner area	259 (19.7)	332 (23.1)	365 (20.6)	956 (21.1)
b. outer area	142 (10.8)	268 (18.7)	294 (16.6)	724 (16.0)
3 East-south	233 (17.7)	279 (19.4)	405 (22.8)	917 (20.3)
a. inner area	222 (16.9)	257 (17.9)	374 (21.1)	854 (18.9)
b. outer area	11 (0.8)	22 (1.5)	31 (1.7)	63 (1.4)
4 Howrah City ^Φ	117 (8.9)	124 (8.6)	154 (3.1)	395 (8.7)
5 West-north	155 (11.8)	153 (10.6)	253 (14.2)	560 (12.4)
a. inner area	67 (5.1)	70 (4.8)	89 (5.0)	226 (5.0)
b. outer area	88 (6.7)	83 (5.8)	164 (9.2)	334 (7.4)

TABLE - 7 (Contd.)

(1)	(2)	(3)	(4)	(5)
6 South-west	140 (10.6)	76 (5.3)	149 (8.4)	365 (3.1)
a. inner area	72 (5.5)	56 (3.9)	88 (4.9)	216 (4.8)
b. outer area	68 (5.1)	19 (1.3)	61 (3.5)	149 (3.3)
7 Calcutta UA	1314 (100)	1437 (100)	1774 (100)	4524 (100)
8 Suburb				
a. inner area ^q	621 (47.2)	715 (49.8)	917 (51.7)	2252 (49.8)
b. outer area	328 (24.9)	396 (27.6)	547 (30.8)	1270 (28.1)
9 Kalyani-Bansberia zone	95 (7.3)	107 (7.4)	207 (11.7)	409 (9.0)

^q See below Table 3.

Note - Figures in brackets show percentages.

Source - Computed from Table 3.

TABLE - 8.

Zonal growth rates in Calcutta Urban Agglomeration 1951-1981

Zone	1951-61	1961-71	1971-81
1 Calcutta City	3.43	7.56	4.96
2 North-east	51.57	43.87	35.74
a. inner area	83.55	58.76	40.13
b. outer area	32.17	40.40	31.45
3 South-east	92.29	57.57	52.98
a. inner area	104.32	58.98	54.07
b. outer area	26.66	45.21	42.49
4 Howrah City ^φ	23.55	20.22	20.91
5 North-west	40.36	28.39	36.56
a. inner area	43.83	31.68	30.52
b. outer area	33.05	26.11	40.94
6 South-west	547.24	45.77	61.94
a. inner area	-	78.30	68.47
b. outer area	265.30	20.67	54.48
7 Calcutta UA	28.14	24.01	23.90
8 Suburb			
a. inner area	91.74	55.13	45.55
b. outer area	41.06	35.19	35.93
9 Kalyani-Bansberia zone	40.36	32.33	47.41

^φ Including Bally municipality.

Note - Same as in Table 3.

Source - Computed from Table 3.

TABLE - 9

Municipal and non-municipal population in Calcutta UA

Zone	1961	1971	1981
(1)	(2)	(3)	(4)
Calcutta City	2927289	3148746	3305006
Howrah City	633851	737877	892164
North-east			
inner area M	545741	788684	1063081
NM	23195	112120	203196 (7995)
outer area M	581688	782859	1006663 (21306)
NM	83265	153566	220533 (12214)
South-east			
inner area M	316581	427513	837991 (16151)
NM	119058	265061	229047 (15531)
outer area M	39824	51039	70404 (3980)
NM	9664	20821	31992 (2721)
North-west			
inner area M	211662	267501	339114
NM	8866	22889	39919 (2720)
outer area M	317602	400539	524993 (15286)
NM	-	-	39511
South-west			
inner area M	-	-	-
NM	72041	128447	216402 (12289)
outer area M	-	-	-
NM	93342	112638	174002 (15781)

TABLE - 9 (Contd.)

Suburb	2	3	4
inner area M	1073984	1483698	2240186 (16151)
NM	223160	528517	688564 (38535)
outer area M	939114	1234437	1602060 (41072)
NM	186271	267025	466038 (30716)
Calcutta UA M	5574238	6604758	8039416 (57223)
NM	409431	815542	1154602 (69251)
T	5933669	7420300	9194013 (126474)

M - Municipality; NM - Non-municipal units; T - Total

Notes - (i) 'Inner area' comprises of towns within a 20 km. radius from Calcutta city (excluding, of course, Howrah city and Bally municipality). 'Outer area' comprises of towns beyond 20 km. distance from Calcutta.

(ii) Howrah city, here, includes Bally municipality.

(iii) Non-municipal units include 'notified area', colonies etc.

(iv) Though New Barrackpore got municipal status after 1961, it has been treated as municipality in 1961; Jadavpur has been treated as a municipality in 1981.

(v) Figures in brackets show the population in 'outgrowths'.

Sources - Census of India 1981, Series 23 - Part 2A;
Census of India 1971, Series 22 - Part 2A.

TABLE - 10

Area under municipal and non-municipal units within
Calcutta UA

City/zone	1961	1971	1981
(1)	(2)	(3)	(4)
Calcutta city	102.95	104.00	104.00
Howrah city	48.98	61.50	63.55
North-east			
Inner area M	82.11	96.87	96.87
NM	16.83	38.16	46.05
Outer area M	81.06	81.06	95.56
NM	44.38	55.72	89.03
South-east			
Inner area M	44.33	44.33	86.77
NM	28.35	35.39	51.51
Outer area M	7.77	9.06	10.05
NM	1.22	6.54	7.81
North-west			
Inner area M	20.70	20.70	23.94
NM	2.54	5.25	11.63
Outer area M	56.27	56.27	62.82
NM	-	-	12.65
South-west			
Inner area M	-	-	-
NM	22.58	40.78	49.30
Outer area M	-	-	-
NM	30.85	30.80	40.68

TABLE - 10 (Contd.)

(1)	(2)	(2)	(3)	(4)
Suburb				
Inner area M		146.14	160.90	207.58
	NM	70.30	119.58	158.49
Outer area M		145.10	146.39	168.43
	NM	76.45	93.06	150.17
Calcutta UA	M	443.17	472.79	543.56
	NM	146.75	212.64	308.66
	T	589.92	685.43	852.22

M - municipality; NM - Non-municipal units; T - Total.

Notes - Same as in Table 9.

Sources - Census of India 1971, Series 22-Part 2A;

Census of India 1981, Series 23-Part 2A.

TABLE - II

Densities in municipal and non-municipal units of
Calcutta UA, 1961-81

City/zone	(persons per sq. km.)		
	1961	1971	1981
(1)	(2)	(3)	(4)
Calcutta city	28434	30276	31779
Howrah city	12941	11998	14039
North-east			
Inner area M	6646	8142	10974
NM	1378	2938	4413
Outer area M	7176	9658	10534
NM	1876	2756	2477
South-east			
Inner area M	7306	9866	9658
NM	4199	7490	4447
Outer area M	5125	5633	7005
NM	7921	3184	4096
North-west			
Inner area M	10225	12923	14165
NM	3490	4360	3432
Outer area M	5644	7118	8357
NM	-	-	3123
South-west			
Inner area M	-	-	-
NM	3190	3150	4389
Outer area M	-	-	-
NM	3026	3657	4277

TABLE - 11 (Contd.)

(1)	(2)	(3)	(4)
Suburb			
Inner area M	7349	9221	10792
NM	3174	4420	4345
Outer area M	6472	8433	9512
NM	2437	3084	3103
Calcutta UA	12578	13970	14790
M			
NM	2790	3335	3741
T	10143	10826	110788

M - Municipality; NM - Non-municipal unit; T - Total.

Notes - Same as in Table 9.

Sources - Computed from Table 9 and Table 10.

TABLE - 12

Gender ratio in municipalities and nonmunicipal units in
Calcutta UA, 1951-81

		(females/ 1000 males)			
City/zone		1951	1961	1971	1981
Calcutta city		580	612	636	712
Howrah city		616	630	679	755
North-east					
Inner area	M	674	739	800	861
	NM	-	810	881	925
Outer area	M	594	654	709	759
	NM	611	798	834	900
South-east					
Inner area	M	715	740	806	864
	NM	-	830	831	889
Outer area	M	580	635	676	719
	NM	567	481	707	795
North-west					
Inner area	M	650	698	752	805
	NM	-	851	812	787
Outer area	M	709	769	791	843
	NM	-	-	-	822
South-west					
Inner area	M	-	-	-	-
	NM	-	707	759	841
Outer area	M	-	-	-	-
	NM	729	720	733	843

TABLE - 12 (Contd.)

(females/1000 males)

City/zone		1951	1961	1971	1981
Suburb					
Inner area	M	681	731	793	853
	NM	-	787	822	878
Outer area	M	628	690	733	784
	NM	652	739	784	864
Calcutta UA	M	606	649	692	769
	NM	652	765	803	872
	T	606	657	704	781

M : municipality; NM : non-municipal units; T : total

Notes : Same as in Table 9.

Sources : Same as in Table 9.

TABLE - 13

Literacy rates in municipalities and non-municipal units
in Calcutta UA, 1961-81

City/zone		1961	1971	1981
Calcutta city		59.29	60.05	69.12
Howrah city		51.52	55.65	64.96
North-east				
Inner area	M	59.39	63.54	72.39
	NM	52.50	60.18	66.78
Outer area	M	45.94	49.36	57.11
	NM	56.48	56.85	65.59
South-east				
Inner area	M	51.43	56.87	64.86
	NM	52.97	57.15	53.94
Outer area	M	41.23	52.99	53.22
	NM	74.33	56.97	62.41
North-west				
Inner area	M	53.66	56.51	66.48
	NM	60.48	62.24	72.79
Outer area	M	50.68	54.25	62.10
	NM	-	-	59.69
South-west				
Inner area	M	-	-	-
	NM	39.25	49.14	57.84
Outer area	M	-	-	-
	NM	30.94	37.57	44.68

TABLE - 13 (Contd.)

City/zone		1961	1971	1981
Suburb				
Inner area	M	55.91	60.35	68.68
	NM	48.80	56.07	60.05
Outer area	M	47.34	50.10	58.57
	NM	44.61	49.32	57.06
Calcutta UA	M	55.74	57.95	66.44
	NM	46.90	53.69	58.84
	T	55.14	57.48	65.48

M : municipalities; NM : non-municipal units; T : Total

Notes - Same as in Table 9

Sources - Census of India 1961, Volume 16.

Census of India 1971, Series 22-Part 2A.

Census of India 1981, Series 23 - Part 13;

(District Census Handbooks for Calcutta,

24-Parganas, Howrah and Hooghly).

TABLE - 14

Proportion of built-up area in some of the municipalities
in Calcutta UA, 1980

Municipality	Percentage of built-up area
Bansberia	50.22
Hooghly-Chinsura	47.42
Chandannagar	63.69
Bhadreswar	58.25
Champdani	50.28
Baidyabati	41.91
Srirampore	59.15
Rishra	63.75
Konnagar	61.87
Uttarpara-Kotrung	65.95
Kalyani (Notified Area)	34.23
Kanchrapara	49.37
Halisahar	56.75
Naihati	70.21
Bhatpara	73.06
Garulia	36.66
North-Barrackpore	38.02
Barrackpore	50.70
Titagarh	83.62
Khardah	54.12
Barasat	34.95
New Barrackpore	70.43
Panihati	63.82

TABLE - 14 (Contd.)

Municipality	Percentage of built-up area
Kamarhati	67.13
Baranagar	60.75
North Dum Dum	56.04
Dum Dum	83.21
South Dum Dum	68.22
Budge Budge	63.21
Rajpur	41.62
Baruipur	58.46

Source - Calcutta Metropolitan Development Authority,
Possible Options for Land Use Plan for Next
Twenty-five Years.

(Report of the Working Group on Land Use),
July 1986.

TABLE - 15

Proportion of urban area and population of districts included in Calcutta Urban Agglomeration - 1981

District (urban)	Area ('sq. km.)		Population ('000)	
	Total	% in CUA	Total	% in CUA
Calcutta	104	104	100.0	100.0
24-Parganas	626	430	68.7	4169
Howrah	174	153	88.2	3582
Hooghly	151	111	72.0	1339
Nadia	206	53	25.9	1282
Total	1264	852	67.4	944
			10504	9194
				89.2
				12.6
				87.5

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Source : Census of India 1981, Series 23 - West Bengal, Part - 1A,
General Population Tables.

TABLE - 16

Migration in Calcutta, Howrah (U), Hooghly (U) and
24-Parganas (U), 1971, 1981

Migration type	1961	1971	1981
Intra-State :			
Intra-district ¹	203619 [¶]	142352 [¶]	321225
rural-urban	(3.22)	(1.80)	(3.26)
Inter-district	413944 [¶]	247593 [¶]	307782
rural-urban	(6.54)	(3.14)	(3.76)
² Inter-district	n.a.	60866	113956
urban-urban		(0.77)	(1.16)
Inter-State	1279688	1044187	1111176
	(20.22)	(13.23)	(11.26)
Inter-Nation	1212923	1020272	1165050
	(19.16)	(12.23)	(11.81)
<u>of which from</u>			
Pakistan/Bangladesh	1176532	995947	1088216
	(18.59)	(12.62)	(11.03)
Total	3110174 ^{¶¶}	2515270	3082189
Population (U)	6329621	7892869	9863810
	(100.0)	(100.0)	(100.0)
Proportion of migrants (percentage)	49.14	31.87	31.25

n.a. Not available!

TABLE - 16 (Contd.)

φ If we include the urban migrants from 'unclassifiable' origin as reported in Census 1961 and 1971 the figures would be :

	1961	1971
Intra-district		
rural-urban	204302 (3.23)	169268 (2.14)
Inter-district		
rural-urban	414894 (6.56)	304694 (3.86)

φφ Excluding interdistrict urban-urban.

1 Intra-district urban-urban migration is ignored since its major part would be within the CUA.

2 It excludes inter-district urban-urban migration between Calcutta, Howrah, Hooghly and 24-Parganas.

Sources - Census of India 1961, Vol. 16, Part-II C (ii, iii);
Census of India 1971, Series 22 Part-II D (iii, ii);
Census of India 1981, Series 23 Part 5A and B.

TABLE - 17

Migration to Calcutta and urban areas of adjoining districts,
districts, 1961-1981

		1961	1971	1981
				<u>Calcutta</u>
Migrants		1541743	1053384	927528
of which				
a. Intra-state intra- district	TL	-	-	-
	RU	-	-	-
	UU	-	-	-
b. Intra-state inter- district	TL	310064 [¶]	217700 [¶]	224195
	RU	233721	152455	143206
	UU	76135	41525	73508
c. Inter-state	TL	679940 [¶]	534234 [¶]	467613
	RU	584329	332732	267448
	UU	154936	124916	161650
d. Outside India of which		551739.	301450	235720
from Pakistan/ Bangladesh		528205	286740	221126
Migrants as % of Population.		52.67	33.45	28.06

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TABLE - 17 (Contd.)

		1961	1971	1981
24-Parganas (U)				
Migrants		1161476	1259606	2005124
<u>of which</u>				
a. Intra-state	TL	193793 [¶]	162597 [¶]	366152
intra-district	RU	115381	87963	210654
b. Intra-state	TL	179460 [¶]	238679 [¶]	509267
inter-district	RU	90804	47159	128375
	UU	83195	172556	380892
c. Inter-state	TL	291613 [¶]	277064 [¶]	360617
	RU	224342	144374	274694
	UU	66434	54383	85923
d. Outside India		496610	581266	769083
<u>of which</u>				
from Pakistan/Bangladesh		439497	574711	716140
Migrants as percentage of population		58.13	42.41	48.09

TABLE - 17 (Contd.)

		1961	1971	1981
Howrah (U)				
Migrants		438654	285964	404554
<u>of which</u>				
a. Intra-state	TL	88331 [¶]	51807 [¶]	96000
intr.-district	RU	57162	31721	67860
	UU	31464	14661	28140
b. Intra-state	TL	90768 [¶]	60023 [¶]	108659
inter-district	RU	51892	23486	51963
	UU	38506	28671	56696
c. Inter-state	TL	138564 [¶]	130256 [¶]	143056
	RU	160732	65221	109851
	UU	27538	17736	33205
d. Outside India				
<u>of which</u>				
from Pakistan/Bangladesh		66542	42028	50152
Migrants as percentage of				
population		53.16	28.21	30.22

TABLE - 17 (Contd.)

		1961	1971	1981
Migrants		347243	327073	452565
<u>of which</u>			Hooghly (U)	
a. Infra-state	TL	53774 ^φ	48207 ^φ	79253
intra-district	RU	31076	22663	42711
	UU	22686	22143	36542
b. Intra-state	TL	79820 ^φ	82555 ^φ	130019
inter-district	RU	37527	24493	47238
	UU	42265	51511	82731
c. Inter-state	TL	119571 ^φ	102633 ^φ	139890
	RU	93656	62687	108236
	UU	25059	19648	31654
d. Outside India		94083	93678	103403
<u>of which from</u>				
Pakistan/Bangladesh		92288	92468	100798
Migration as percentage				
of population		59.94	43.02	43.08

φ Includes migrants from unclassifiable origin.

Note : TL - Total, RU : Rural-urban, UU - Urban-urban.

Sources : (1) Census of India 1961, Vol. 16, Part-II-C (ii and iii).

(2) Census of India 1971, Series 22, Part-II-D
(i and ii).

(3) Census of India 1981, Series 23, Part-5A and B.

TABLE - 13

Female per thousand male for migrant and non-migrant population in Calcutta and its neighbouring districts, 1961-1981.

		1961	1971	1981
			Calcutta	
Population		612	636	712
Non-migrant		848	776	801
Migrant		446	413	519
	<u>of which</u>			
Intra-state	TL	600	529	757
inter-district	RU	610	478	684
	UU	571	760	935
Inter-state	TL	270	239	320
	RU	237	176	253
	UU	396	405	438
Pakistan/Bangladesh		643	780	849

TABLE - 13 (Contd.)

		1961	1971	1981
Population		737	793	347
Non-migrant		711	791	796
Migrant		774	795	905
<u>of which</u>				
Intra-state	TL	833	1380	1452
intra-district	RU	923	1538	1543
	UU	819	1374	1350
Intra-state	TL	811	1071	1116
inter-district	RU	724	893	979
	UU	906	1159	1166
Inter-state	TL	343	366	432
	RU	341	340	373
	UU	346	493	657
Pakistan/Bangladesh		914	846	889

TABLE - 18 (Contd.)

		1961	1971	1981
			Howrah (U)	
Population		644	702	737
Non-migrant		748	724	728
Migrant		562	648	939
<u>of which</u>				
Intra-state	TL	1067	1751	2314
intra-district	RU	995	2057	2213
	UU	1214	1455	2536
Intra-state	TL	334	1025	1358
inter-district	RU	677	862	1082
	UU	1264	1292	1684
Inter-state	TL	276	303	395
	RU	244	279	359
	UU	503	410	528
Pakistan/Bangladesh		711	764	668

TABLE - 18 (Contd.)

		1961	1971	1981
Hooghly (U)				
Population		743	784	833
Non-migrant		792	747	760
Migrant		720	334	938
<u>of which</u>				
Intra-state	TL	1336	1444	1809
intra-district	RU	1170	1591	1817
	UU	1609	1360	1799
Intra-state	TL	969	1355	1464
inter-district	RU	670	1132	1275
	UU	1342	1541	1537
Inter-state	TL	389	379	444
	RU	323	317	393
	UU	666	523	627
Pakistan/Bangladesh		807	945	864

Notes : TL - Total, RU - Rural-Urban, UU - Urban-urban.

(1) Total gender ratio is computed including the migrants from 'unclassifiable' origin.

Source : Same as in Table 15.

TABLE - 19

Migration in the suburban Calcutta¹

	1971	1981	% share of change in popula- tion
Migrants			
Inter-state	509953	643563	7.36
Outside India	718822	929330	11.60
Intra-state			
Intra-district rural-urban	142352 ^ø	321225	9.36
Inter-district rural-urban	95138 ^ø	164576	3.83
Inter-district urban-urban (excluding Calcutta)	33756	77564	2.14
Inter-district urban-urban from Calcutta	177346	355369	9.31
Total	1682367	2491627	44.60
Population	4744123	6558304	100.00

^ø Does not include migrants from 'unclassifiable' origin.

¹ Suburban Calcutta, here, refers to urban parts of 24-Parganas, Howrah and Hooghly district.

Note - Inclusion of migrants from 'unclassifiable' origin in the stream of intra-state rural-urban migrants in 1971 does not change the percentages substantially.

Source - Computed from Census of India data.

TABLE - 20

Migration between Calcutta and Howrah, Hooghly and
24-Parganas, 1961-81

	1961	1971	1981
<u>To Calcutta</u>			
24-Parganas			
Urban	8410	17204	
	76836	(1005)	(1195)
Rural	57160 ^Φ	48738	
	(733)	(958)	
Howrah			
Urban	5945	12332	
	54074	(875)	(993)
Rural	27405 ^Φ	17117	
	(363)	(622)	
Hooghly			
Urban	5060	7530	
	29417	(801)	(1268)
Rural	15365 ^Φ	11300	
	(382)	(636)	
Total			
Urban	19415	37116	
	160327		
Rural	99930 ^Φ	77155	

TABLE - 20 (Contd.)

	1961	1971	1981
<u>From Calcutta</u>			
24-Parganas			
Urban	114277	134037	236827
	48468	(1143)	(1113)
Rural		15447	35874
		(1374)	(1490)
Howrah			
Urban	13423	16656	30463
		(1303)	(1674)
Rural		6151	4712
		(1530)	(3237)
Hooghly			
Urban	26183	26653	33079
		(1515)	(1377)
Rural		10302	11009
		(1681)	(1883)
Total			
Urban		177346	355369
	93077		
Rural		31900	51595

φ Includes migrants from 'unclassifiable' area so far as rural-urban is concerned.

Sources - 1. Census of India 1981, Series 23, Part-5A and B.
 2. Census of India 1971, Series 22, Part-X-C.
 3. Census of India 1961, Vol. 16, District Census Handbooks for the relevant districts.

TABLE - 21

Demographic Features of Calcutta city, 1901-1961

Year	Area (sq.km.)	Calcutta M.Y. ^a		Calcutta city area(1931)		Gender ratio	Literacy rate(%)
		Population (/.)	Growth (/.)	Population	Growth (/.)		
1	2	3	4	5	6	7	8
1901	43.38	303969	-	933754	-	513	n.a.
1911	43.33	361501	6.49	1016445	3.86	492	n.a.
1921	43.33	335815	2.32	1053334	3.63	437	45.0
1931	81.33	3153044	30.73	1165333 ^b	10.63 ^b	468 ^b	43.2
1941	73.35	2070619	73.30	1738653 ^c	53.49 ^c	n.a.	53.9
				(2167485)	(86.00)	(456)	
1951	73.40	2520921	21.75	2693494	50.87	530	53.1
1961	95.60	291412	15.61	2927239	8.43	612	59.3
1971	93.79	3136391	7.62	3143746	7.57	636	60.5
1981	98.79	3283143	4.84	3305006	4.96	712	69.5

TABLE - 21 (Contd.)

n.a. Not available

a This refers to the area under Calcutta Municipal Corporation at various points of time. For example, in 1931 Garden Reach was a part of Calcutta Corporation but in the subsequent years it formed a separate town.

b Excluding Garden Reach.

c In 1941 Calcutta city population is supposed to be an overestimate. The figure we consider here is based on the houselisting population figure (1730074) for the city in 1941. The actual census figure is reported in bracket.

d Females per 1000 males.

Sources - Census of India 1931, Series 23-Part 2A; Census of India 1951, Vol. 6, Part 2 and Part 3; Census of India 1931, Vol. 6 (Calcutta) Part I and II.

TABLE - 22

Average crude birth rate and death rate in Calcutta City

1951-81

(per 1000)

Period	Birth rate	Death rate	Natural growth area
1951/52-60/61	24.3	12.3	11.5
1961/62-70/71	21.4	9.9	11.5
1971/72-80/81	18.5	6.5	12.0

Notes - (i) Crude birth and death rates are computed dividing the numbers of births and deaths registered by the estimated population.

(ii) Using age specific fertility rate the crude birth rate in Calcutta city was estimated to be 25.3 per 1000 people in 1957-58 (see S.B. Mukherjee, 1962, p. 64) which falls/in line with the present estimates.

Source - Registered numbers of births and deaths are obtained from Calcutta Municipal Corporation, Year Book for 1978-79 and 1987-88.

TABLE - 23

Zones and constituent wards, Calcutta City, 1951-81

Zone	1951	Constituent wards		
		1961	1971	1981
North				
Inner North	1-6	6-14, 17- 22, 24, 25, 29, 23-29, 32	7-12, 15- 23, 30-39, 39, 41 41-42	7-12, 15- 23, 30-39, 39, 41 41-42
Outer North	30-32	1-5	1-6	1-6
Central				
CBD ⁹	7, 10, 12, 13, 8(p)	23, 26, 27, 37-40, 42	43-46, 52-55	42-43, 45-47, 52
Non-CBD	8(p), 9,	30, 31, 34,	36, 37, 40,	36, 37, 40,
Central	11, 14-16, 17	41, 43-46, 50, 51,	47-51, 56, 63-65	44, 40-51, 53, 61-63
East	18-20, 28, 29	15, 16, 33, 35-36,	13, 14, 30-35,	13-14, 29-35,
		47-49,	57-62,	54-56,
		56-58.	66	57(^p), 58(^p), 59-60
West	25-26	73-75	79-84	75-80

TABLE - 23 (Contd.)

Zone	Constituent wards			
	1951	1961	1971	1981
South				
Inner South	21-24, 27	59-72	67-68, 71-78, 85-93	64, 65, 68-74, 81-90
Outer South	φφ	76-80	69, 70, 94-100	66, 67, 91-100
Total No. of wards	32	80	100	100

φ Central business district.

φφ The area included in 1953.

Notes - (1) (p) - partly included.

(2) The zones have been demarcated using ward maps of Calcutta city such that area of each zone remains comparable over time.

(3) Wards of 1981 were in fact reorganised wards of 1984, for which 1981 census data are reported.

Source - Based on maps available in Census of India 1961,

Vol. 16 - West Bengal, District Census Handbook for Calcutta; Census of India 1971, Series 22, District Census Handbook for Calcutta and Census of India 1981, Series 23, District Census Handbook for Calcutta.

TABLE - 24

Area of zones within Calcutta City

Zone	1951	1961	1971 and 1981	(Sq. Km.)
North	16.22	16.21	15.90	
Inner North	7.64	7.61	7.46 (-)	
Outer North	8.58	8.60	8.44 ¹	
Central	13.34 (9.53)	13.37 (9.56)	11.83 (8.07)	
CBD	4.40 (3.67)	4.40 (3.67)	4.05 (3.32) 0.6+	
Non-CBD	8.94 (5.86)	8.97 (5.89)	7.78 (4.70) (-)	
East	17.78	16.30 (-)	15.89 (+)	
West	13.30	13.23	11.64	
South	34.63	36.46	36.93	
Inner South	17.54	17.66 (+)	17.33 (-)	
Outer South	17.09 ²	18.80 (+)	19.60 (-)	
Calcutta (M.C.)	95.27 ³	95.62 ⁴	92.19 ⁴	

(+) According to map increase in area compared to previous census year.

(-) According to map decrease in area compared to previous census year.

TABLE - 24 (Contd.)

1. This figure is reached taking area of ward 4 in 1971 as 0.77 sq. km., instead of 7.67 sq. km. as reported in Census 1971 (Census of India 1971, Series 22, Part 2A) which seems to be a gross mistake. The estimate 0.77 sq. km. is obtained by comparing maps of Calcutta published in District Census Handbook of Calcutta, in Census 1961 and Census 1971.
2. Area of Tollygunge municipality as reported in Census of India, 1951.
3. Including the area of Tollygunge municipality.
4. Calcutta Municipal Corporation area was 95.60 sq. km. in 1961 and 98.80 sq. km. in 1971.

Note - Figures in brackets show area excluding the portion of Maidan.

Source - Based on data and maps given in Census of India, 1951, 1961, 1971 and 1981.

TABLE - 25

Zone-wise population in Calcutta City, 1951-81

Zone	1951	1961	1971	1981
North	853214 (100)	876367 (103)	909528 (107)	903698 (106)
Inner north	678833 (100)	664789 (98)	688231 (101)	637561 (94)
Outer north	174381 (100)	211578 (121)	221297 (127)	266147 (153)
Central	561045 (100)	586487 (105)	564968 (101)	490004 (87)
CBD	205253 (100)	197659 (96)	213828 (104)	127092 (62)
Non-CBD	355792 (100)	388828 (109)	351140 (99)	362912 (102)
East	425456 (100)	461009 (108)	543363 (128)	553319 (130)
West	162685 (100)	186944 (115)	199210 (122)	250058 (154)
South	685819 (100)	803605 (117)	918817 (134)	1005861 (147)

TABLE - 25 (Contd.)

Zone	1951	1961	1971	1981
Inner South	518521	534647	574574	654188
	(100)	(103)	(111)	(126)
Outer South	167298 ^a	268953	344243	351673
	(100)	(160)	(206)	(210)
Calcutta (MC)	2688219 ^a	2914412	3136391	3238148
	(100)	(108)	(117)	(122)

a Includes Tollygunge municipality which became a part of Calcutta Corporation after 1953.

Note - (1) Figures in brackets are indices of population with 1951 as base year.

(2) Figures of CBD, non-CBD, and East in 1981 are approximate.

Source - Compiled from ward-wise Census data.

TABLE - 26

Density in different zones within Calcutta city 1951-1981

(Persons per sq. km.)

Zones	1951	1961	1971	1981
North	52602	54063	57203	56836
Inner North	88852	87357	92256	85464
Outer North	20324	24602	26220	31533
Central	42057	43866	46657	41420
	(52871)	(61349)	(70008)	(60719)
CBD	46648	44922	52797	31381
	(55927)	(53858)	(63450)	(38281)
Non-CBD	39798	43348	45134	46647
	(60715)	(66015)	(74710)	(77215)
East	23929	28283	34227	34822
West	12232	14077	17114	21483
South	19804	22041	24880	27237
Inner South	29562	30274	33155	37749
Outer South	9789	14306	17563	17943
Calcutta (MC)	28217	30479	31745	32281
			(34021)	(35667)

- Notes - (i) Figures in bracket shows density computed excluding the Maidan portion.
- (ii) Figures for CBD, Non-CBD, and East in 1981 are approximate because area estimates are approximate ones.
- (iii) Density figures for Calcutta (MC) in 1971 and 1981, are computed on the basis of Census reported area, i.e., 98.8 sq. km.

Source - Based on Table 22 and 23.

TABLE - 27

Area and population in the registered bustees in Calcutta City, 1958-1971

Zone	Area (sq. km.)			Population ('000)		
	1958-9	1964-5	1971	1968-9	1964-5	1971
Inner North	0.72	0.62	0.57	1202	1280	1449
Outer North	1.12	1.30	1.15	361	338	320
CBD-Central	0.04	0.06	0.03	94	160	82
Non-CBD Central	0.35	0.30	0.28	575	569	704
East	2.80	3.09	2.90	2354	1908	2632
West	0.52	0.48	0.50	587	601	659
Inner South	0.91	0.72	0.70	1016	853	1154
Total	(6.45)	(6.57)	(6.13)	(6689)	(5911)	(7500)

Sources - 1958-59 data from Report on Bustee Survey in Calcutta (West Bengal, Bureau of Applied Economics and Statistics, Calcutta, 1960), Vol. 16; for 1964-65 data, Calcutta Corporation Yearbook 1964-65; for 1971 data, Calcutta Corporation Yearbook 1970-71.

TABLE - 28

Gender ratio^q in Calcutta City, 1951-81

Zone	1951	1961	1971	1981
North	617	644	652	718
Inner North	610	626	624	692
Outer North	649	702	744	782
Central	421	439	431	527
CBD	282	312	322	434
Non-CBD	516	513	507	563
East	689	706	733	789
West	441	453	501	587
South	664	725	756	811
Inner South	670	683	707	771
Outer South	646	815	846	892
Calcutta (MC)	582	614	638	714

q Females per 1000 males.

Note - Gender ratios are calculated from zonewise male and female totals.

Source - Computed from Census data.

TABLE - 29

Zone-wise average household size in Calcutta 1961-1981

Zone	1961	1971	1981
North			
Inner North	5.26	5.31	5.81
Outer North	4.89	5.20	5.17
Central			
CBD	5.28	3.98	5.57
Non-CBD	5.55	4.50	5.65
East	4.83	5.03	5.52
West	4.20	3.86	4.67
South			
Inner South	5.17	5.24	5.56
Outer South	5.62	5.88	5.44
Calcutta (MC)	5.08	4.97	5.46

Note - Average household size is obtained dividing population by number of households. Institutional households like boarding houses, hostels are included; but the population of the institutional households is small relating to total population in each zone, and therefore their inclusion does not affect the household size significantly.

Source - Compiled from data from Census of India 1961, 1971 and 1981.

TABLE - 30.

Literacy rate in Calcutta, 1961-81

(Percentage)

Zone	1961	1971	1981
North	60.5	60.0	68.7
Inner North	61.5	60.0	69.5
Outer North	57.2	60.0	66.8
Central	62.1	61.5	68.1
CBD	61.8	56.5	69.9
Non-CBD	62.3	64.6	67.5
East	51.0	54.0	65.5
West	42.5	56.2	61.5
South	64.4	64.3	74.3
Inner South	64.6	63.5	74.1
Outer South	64.2	65.7	75.6
Calcutta (MC)	59.3	60.5	69.5

Source - Computed from Census data.

TABLE - 31

Distribution of wards of Calcutta (1971) by density and distance from CBD

Distance from CBD (km.)	Density in 1971 ('000 per sq. km.)			
(1)	Above 2000	200-100	100-75	75-50
	(2)	(3)	(4)	(5)
0 - 1				53
1 - 2	23,43	22,25,41,42,46,	50,56	44,52,51
2 - 3	24	55,40,47,48		
3 - 4	-	17,18,20,21,26,	19,23,37,46,63	29,39,64,65,57,66,79
4 - 5	-	27,38,62		
5 - 6	-	-	10,30,31,76	7,8,9,11,12,15,16,
6 and above -	-	-	32,87	50,50,31
No. of wards	(3)	(13)	(14)	(24)

85

TABLE - 31 (Contd.)

Distance from CBD (Km.) (1)	Density in 1971 ('000 per sq. km.)		No. of wards (3)
	50 -- 25 (6)	Below 25 (7)	
0 - 1	-	45	(2)
1 - 2	-	54	(17)
2 - 3	36	-	(22)
3 - 4	59, 14, 35, 67, 73, 77	61, 72	(17)
4 - 5	34, 60, 33, 63, 71, 74	5, 6, 13, 32, 33, 78	(12)
5 - 6	1, 3, 4, 36, 85, 89, 92	69, 70, 93, 34 ^q	(8)
6 and above	2	94, 95, 96, 99, 97, 98, 100	(100)
No. of wards (20)	(21)		

6

^q The area of Ward 34 lies within a 7 km. radius but beyond a 3 km. radius.

Note - Taking the mid-point of Ward 45 as centre distance range for the wards have been computed.

TABLE 32

Denseographic Changes in the Comparable Wards/Ward Groups in 1971 and 1981 in Calcutta

Comparable wards/ ward groups	1971	1981 CSD#	Distance from area Sq. Km.	Area in 1971		Population ('000)		Growth rate		Density ('000/sq.km)		Gender ratio		Literacy rate		Percentage of hostile population	
				1971	1981	1971	1981	1971-81	1971	1971	1981	1971	1971-81	1971	1971-81	1971	1971-81
				Outer North	Inner North												
1	1	5-6	1.33	43.6	51.0	17.0	32.8	38.3	693	48	57.9	7.5	-	-	-	-	-
2	2	6	1.68	45.3	44.9	-0.8	26.8	26.7	829	36	74.4	-1.3	-	-	-	-	-
3+4	3+4	5-6	2.39	73.8	99.2	34.4	30.9	41.5	811	40	58.9	11.2	-	-	-	-	-
5	5	4-5	1.50	25.9	28.4	9.8	17.2	19.0	749	-24	63.2	1.2	-	-	-	-	-
6	6	4-5	1.70	32.8	42.6	30.1	19.3	25.1	570	73	41.4	12.3	54.5	-	-	-	-
7+8	7+8	3-4	0.67	43.4	48.9	12.7	64.7	72.9	742	41	71.2	-0.7	-	-	-	-	-
9+10	9+10	3-4	0.78	55.1	56.1	1.8	70.7	72.0	739	69	72.3	5.1	-	-	-	-	-
11+15	11+15	3-4	0.81	53.0	60.0	13.3	65.4	74.1	683	-12	61.9	7.2	-	-	-	-	-
12	12	3-4	0.53	27.9	26.5	-5.2	52.7	50.0	624	46	63.9	1.9	-	-	-	-	-
13	13	4-5	0.73	25.8	28.8	11.7	35.4	37.5	714	77	72.7	-8.7	60.2	-	-	-	-
14+32	14+32	3-5	3.91	102.4	130.8	27.8	26.2	33.4	791	-15	61.8	9.2	-	-	-	-	-
16	16	3-4	0.35	23.7	22.7	-4.3	67.7	64.8	698	73	70.1	1.3	-	-	-	-	-
17	17	2-3	0.28	32.3	29.0	-10.4	115.4	103.4	732	68	71.4	10.5	-	-	-	-	-
18	18	2-3	0.24	28.0	23.1	-10.4	116.9	104.7	744	66	56.6	3.7	-	-	-	-	-
19	19	2-3	0.26	25.7	23.7	-7.7	98.9	91.3	717	53	39.6	36.9	-	-	-	-	-
20	20	2-3	0.26	27.1	22.6	-16.8	104.6	87.0	583	59	54.1	16.3	6.5	-	-	-	-
21+22	21+22	1-4	0.50	63.1	45.8	-27.4	126.3	91.7	443	133	60.9	12.1	-	-	-	-	-
23	23	1-2	0.15	41.5	29.9	-27.8	276.5	197.5	596	125	67.3	7.6	0.5	-	-	-	-
24+27	41+25	1-3	0.41	45.9	42.2	-9.9	111.9	103.1	666	48	65.6	8.4	-	-	-	-	-
26	26	2-3	0.29	35.4	30.8	-12.8	122.0	106.4	628	56	33.8	40.9	15.2	-	-	-	-
28+29+38+39	27+28	2-3	1.40	107.7	104.3	-3.2	77.0	74.5	607	53	58.5	6.1	-	-	-	-	-

TABLE 32 (Continued)

Comparable wards/ ward groups	1971	1981	Distance from CBD*	Area in Sq. Km.	Population ('000)		Growth rate 1971-81	Density ('000/sq.km) 1971	Gender ratio# d(71-81) 1971	Literacy rate d(71-81) 1971	Percentage of busite population 1971
					1971	1981					
East											
33	35	4-5	1.76	28.9	43.7	51.5	16.4	24.8	854	-17	55.2
30+31+35	29+30+35	3-4	1.66	96.2	111.0	15.4	58.0	66.9	792	1	57.3
34	34	4-5	0.82	31.1	38.4	23.1	38.0	46.8	677	12	74.4
58	56	3-4	0.64	38.3	42.7	11.3	59.9	66.6	653	62	41.3
61	59	3-4	1.99	35.0	48.7	39.0	17.6	24.4	763	94	52.7
CBD											
43+44+45	42+45	0-2	1.88	69.6	39.5	-43.2	37.0	21.0	306	174	58.0
Non-CBD Central											
37	37	2-3	0.31	28.7	27.8	-3.0	92.5	89.7	526	54	52.4
40	40	1-2	0.26	33.5	31.9	-4.7	128.7	122.7	589	19	71.5
41	41	1-2	0.21	25.4	24.0	-5.7	121.1	114.3	430	99	39.6
50	50	1-2	0.39	30.4	26.2	-13.9	78.1	67.2	580	13	75.6
West											
79	75	0.50	21.3	26.4	24.3	42.5	52.9	396	107	40.6	17.0
80	76	3-4	0.45	29.0	31.9	13.3	64.5	70.9	555	53	60.7
81+82	77+78	3-5	1.01	75.9	105.1	38.4	75.2	104.0	611	50	46.0
83	79	4-5	1.39	33.5	46.1	37.9	24.1	33.2	453	88	41.9
84	80	5-6	8.29	39.5	40.4	2.5	4.8	4.9	378	127	42.4
											8.7

(88)

TABLE 32 (Continued)

Comparable wards/ ward groups	1971	Distance Area in sq. km.		Population ('000)		Growth rate	Density ('000/sq. km.)	Gender ratio: 1971 d(71-81) 1971		Literacy rate d(71-81) 1971	Percentage of bustee population 1971
		1981	CBR*	1971	1981	1971-81	1971	1971	1981	1971	1971
Inner South											
67	64	5-4	0.79	36.9	33.9	-8.3	46.7	42.9	628	41	57.2
71	68	4-5	0.87	28.3	28.2	-0.4	32.5	32.5	716	98	70.5
72	69	3-4	2.10	41.0	52.1	27.0	19.6	24.8	655	90	58.0
73	70	3-4	0.65	25.9	33.6	29.7	39.9	51.8	644	-14	65.8
74	72	4-5	0.91	29.7	30.7	3.4	32.6	33.7	660	101	68.1
78	74	4-5	2.90	37.9	38.7	2.2	13.1	13.4	437	58	65.5
85	81	5-6	1.39	38.8	43.8	12.9	27.9	31.5	734	81	59.4
86	82	5-6	1.11	40.2	47.2	17.5	36.2	42.6	762	50	59.3
88	88	5-6	0.40	30.9	30.9	-0.2	77.4	77.2	839	33	63.5
90	84	4-5	0.47	27.5	27.3	-0.8	38.3	58.1	772	-14	67.2
91	85	4-5	0.64	35.4	33.2	-6.2	55.3	51.9	871	-4	63.9
92+93	86+90	5-6	1.94	46.3	67.7	46.2	23.9	34.9	794	91	70.2
Outer South											
100	100	6	2.13	37.7	46.4	23.0	17.7	21.8	902	36	74.6
										8.1	-

(89)

Notes: (1) Only those wards or ward-groups which are roughly comparable in terms of area in 1971 and in 1981 are considered

* Females per thousand males. d(71-81): change during 1971-81. -: nil.
@ Distance computed from a central point in ward 45.

Sources: (1) Compiled on the basis of data available in District Census Handbooks on Calcutta in Census of India 1971 and Census of India 1981.

(2) Proportion of 'Bustee' (slum) population computed on the basis of ward-wise bustee population given in The Calcutta Corporation Yearbook, 1970-71.

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